Niagara Conoidal Fans

"Buffalo"

FOREWORD

THIS volume contains tables of performances that will enable engineers and architects to make fan selections to meet any demands met in ordinary heating and ventilating practice.

¶ If you have special problems, not covered by this work do not hesitate to avail yourself of the services of our engineering department, who are at all times glad to be of assistance on heating and ventilating problems.

BUFFALO

NIAGARA CONOIDAL FANS

CATALOG No. 421

Buffalo Forge Company

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New York
Boston
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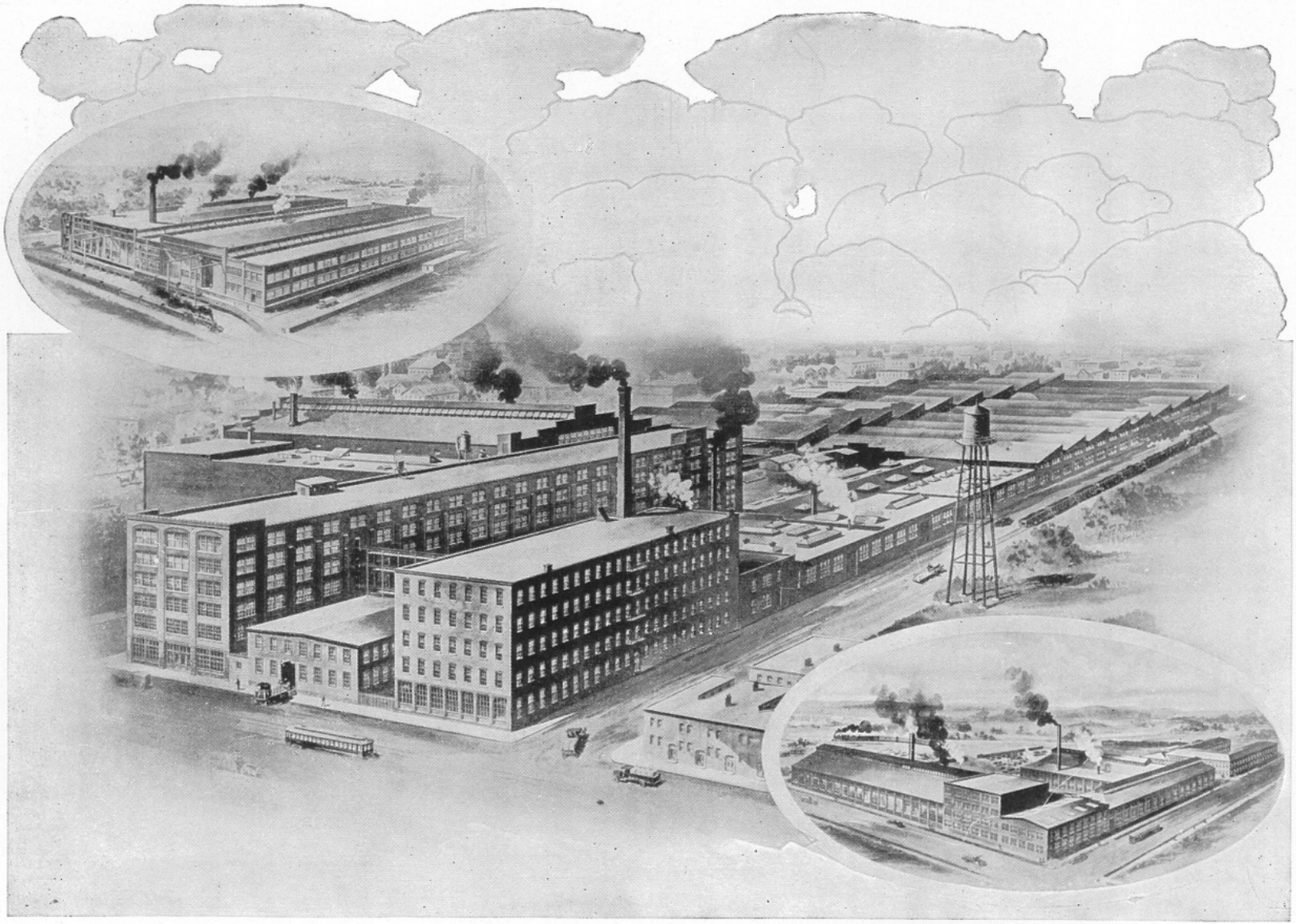
Los Angeles

Cleveland
Detroit
Chicago
St. Louis

New Orleans
Atlanta
Minneapolis
Denver
Cincinnati

CANADIAN BLOWER & FORGE CO., Ltd.
Kitchener, Ont., Canada

Toronto Montreal Calgary Vancouver St. John



Canadian Blower & Forge Co.
Kitchener, Ontario

Buffalo Forge Company
Buffalo, New York

Buffalo Steam Pump Works
North Tonawanda, New York

Niagara Conoidal

Type "N" Fans

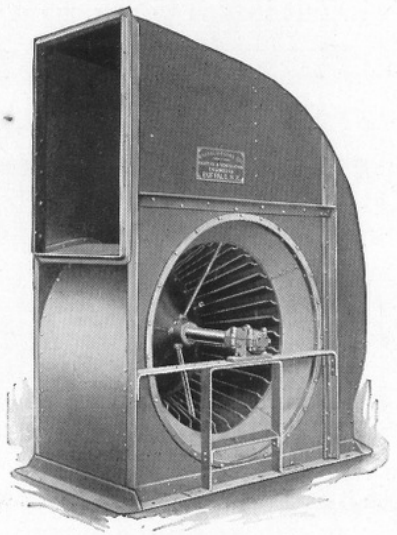
NIAGARA Conoidal fans are designed to operate at the speeds met with in ordinary heating and ventilating practice.

It is a fan of the multiblade type, having blades of single curvature, conforming to the surface of a cone.

In fact the Niagara Conoidal fan derives its name from the prevalence of conical shapes and surfaces in its design. There is a cone inlet in the housing, the individual blades are sections of a conical surface and both the inner and outer edges of the blades instead of being parallel to the shaft form frustums of cones.

The efficiency of any fan depends on the correct proportioning of the various parts, especially diameter and width of blast-wheel, size and position of outlet opening, size of inlet and proper design of housing. Multiblade fans have shorter and more blades than the older type of steel plate fans, and the static pressure due to the wheel, which depends on the radial depth of the blade, is small relative to the velocity pressure at the tip of the wheel. To convert this velocity pressure into static head greater care in design must be placed on the proper shape of the housing in order to obtain the best efficiencies of which this type of fan is capable.

In order to emphasize the advantages of compactness and reduction in head-room, fans of the multiblade type have been built with restricted casings, which, though handling large air quantities, require more power than the ordinary steel plate fan. Circumstances may make space more important than horsepower but for the usual installation it is much more desirable to obtain the best possible efficiency by using a modified casing suitable for handling the large volumes dealt with even at a small increase in dimensions. Obviously the outlet of the housing should be 100% effective, i. e., the velocity should be as nearly uniform as possible at all points, and as mere size is no advantage, the increase of outlet area by dropping the inner edge nearer to the center of the fan housing is of little use. In the Niagara Conoidal fan the modified housing forms a cone corresponding to the



Three-quarter Housing, Niagara Conoidal Fan, Left-Hand Top Horizontal Discharge, for Overhung Pulley or Direct Connection.

evasé chimney of certain types of mine ventilating fans in which the air is brought to a comparatively low velocity and a large portion of the velocity pressure is made available, which with other types of fans is necessarily lost by shock and eddy currents at or immediately beyond the fan outlet. This peculiar form of housing produces velocities which are nearly uniform across the entire face of the outlet.

Many tests were made on various sizes of Niagara Conoidal fans with different designs of housings and it was found that the greatest possible conversion of velocity head at tip of blades into static pressure at fan outlet was obtained by making the inner edge of the outlet approximately tangent to the periphery of the wheel and the height of the outlet approximately equal to the wheel diameter. Our standard guarantee is that static pressure of air issuing from any part of the fan outlet as measured by a pitot tube is not more than 15% above or below the average static pressure.

The Niagara Conoidal fan is especially adapted to handle a large volume of air at a comparatively low pressure when running at a moderate speed. As will be seen from the following description this is the only fan which is designed and constructed with a thorough understanding of all of the factors contributing to the high efficiency of this class of fans.

In multiblade fans a high suction is produced at the fan inlet and this tends to draw the air in at almost a right angle to the back or drive side. When the air strikes the back plate it is deflected toward the blades and outlet at almost 90° and naturally this sudden change of direction causes a loss of velocity and power. Also a large part of the air will be taken up by the rear part of the blade, the front part will not handle its proper proportion and an uneven pressure will be produced at the fan outlet, resulting in eddy currents which materially reduce the fan efficiency. The Niagara Conoidal Type "N" fan is so designed as to entirely overcome these difficulties.

The blades are narrow at the front and increase in width toward the back. This provides a large, unobstructed inlet. The hub, which is conical, deflects the air toward the blades without an abrupt change in direction and consequently without loss of power.

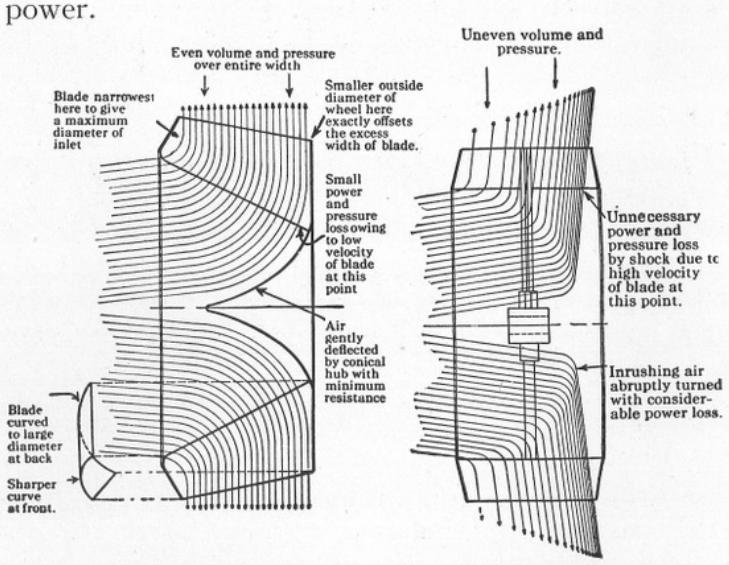


Diagram showing advantages of Niagara Conoidal over other Multiblade Fans in handling air.

The inner or back edge of the blade extends from the base of the conical hub to the outside of the supporting disk to which the hub is riveted. The diameter of the wheel is smaller at the back than at the front and the blade wider so as to offset the slower speed, the design being so proportioned as to tend to equalize volume and pressure over the entire length of the blade.

However, the need of careful design does not end here. As the air is taken up and delivered at different speeds along the entire length of the blade, it is very important that the curvature of the blade should vary to meet the exact conditions existing at any point. On the inlet side the curve of the blade is sharpest nearest the intake where the velocity is the highest and this curve decreases toward the back, with the result that the air is scooped up noiselessly and without impact at an angle accurately proportioned to the actual speed of the blade. The curvature of the blade is such that at normal or rated capacity the air will leave the tip with a velocity pressure approximately twice the pressure corresponding to the peripheral velocity of the wheel in order to reduce the required speed of rotation. In the same way the outlet angle is sharpest at the intake where the diameter is the greatest and the static pressure is considerably increased at this point compared with any other multiblade fan.

The theoretical efficiency of multiblade fans is often materially reduced by deflection of the narrow blades when operated at a moderately high speed. This defect, which is very common, is entirely overcome by the peculiar shape of the Niagara Conoidal blade, which is strong and rigid without the use of excessively heavy material.

From this brief description it is evident that the success and high efficiency of the Niagara Conoidal fan depends to a great extent on correct proportioning of all the various parts. Extensive tests have been made on the entire line of Niagara Conoidal fans and this company guarantees that the capacity, speed and horsepower tables given in this catalog are accurate and reliable.

Dimension tables on pages 19 to 29 show standard positions of discharge openings but special position of openings can be furnished if desired and housing can be constructed with two outlets to discharge air in different directions.

As will be seen from the characteristic curve of Niagara Conoidal Type "N" fans on page 12, pressure does not build up as capacity falls off, which makes this fan especially adaptable for cases where an increased air quantity is wanted as pressure increases, or vice versa, as in the case of heating and ventilating where one wing of a building is closed off. In this case it may not be convenient to change the speed and this fan will show only a slight increase in velocity through the ducts which remain open, due to the increased resistance. Likewise these fans are very suitable for forced draft and similar work, they occupy comparatively small space and are used to advantage on boats or in places where space is limited.

In public building work in order to insure quietness of operation the velocity of air at fan outlet should be kept at about 1800 ft. per minute with a maximum allowable velocity of 2200 ft. For industrial installations or where quietness of operation is not essential outlet velocities as high as 4000 ft. per minute may be used.

Capacity tables for both total and static pressures are given on pages 30 to 51. The maximum efficiency ratings are shown in heavy type. It will be seen from these static pressure tables that the Niagara Conoidal Type "N" fan gives a wide range of capacities at constant static pressure with but little variation in speed and but slight change in total efficiency.

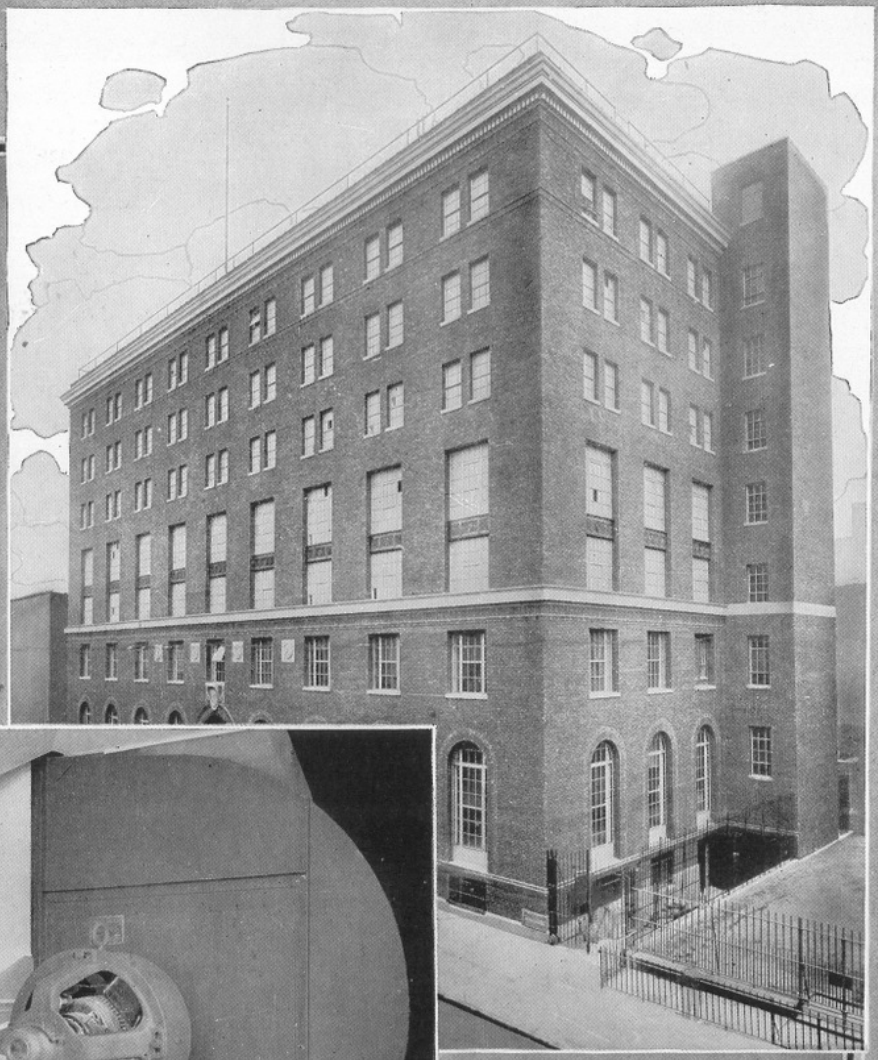
The tables will not be found confusing if it is borne in mind that the amount of air delivered by any fan at a given speed is governed absolutely and entirely by the frictional resistance of the system.

In the complete tables static pressures are used, since the resistances are estimated in terms of static pressure. The static pressure developed by a Niagara Conoidal fan is 77½% of the total pressure at maximum efficiency rating, but since a portion of the velocity head is usually converted into static pressure and thereby made available, it should be included in estimating the efficiency of the system as a whole.

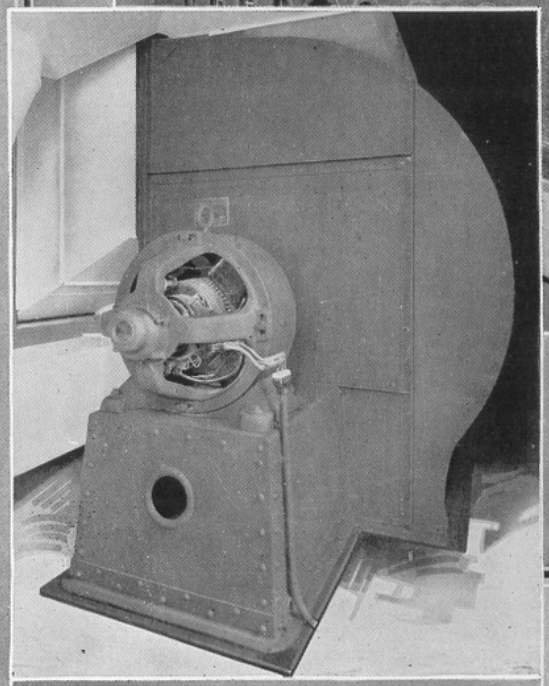
To illustrate the use of the static pressure tables we may assume a case where 17000 cu. ft. of air per minute is wanted against a static pressure of one inch. By referring to the tables we find that we can use a No. 6 at 419 R. P. M., 6.59 H. P., and 3200 ft. outlet velocity per minute; a No. 7 at 332 R. P. M., 5.19 H. P., and 2400 ft. outlet velocity per minute; or a No. 8 at 291 R. P. M., 4.86 H. P., and 1800 ft. outlet velocity per minute. Thus if quietness of operation is essential or power is an important factor the No. 8 fan should be used. If quietness of operation is not essential as in an industrial installation and first cost is an important consideration, the No. 7 or No. 6 fan may be used.

A point difficult of comprehension to those familiar with the characteristics of straight blade fans is that apparently the tables for static pressures show two capacities for each fan with the same speed and when discharging against the same pressure. For example a No. 5 Type "N" fan will deliver either 5470 cu. ft., or 10200cu. ft. per minute at 480 R. P. M. at one inch static pressure. This is due to the peculiar characteristic curve of Niagara Conoidal fans, which shows a static pressure increasing with the capacity up to a point which is a little below the normal rating and then falling off again. Since this is the case, the reverse is true, i. e., at a point either above or below the capacity which corresponds to the maximum static pressure, the revolutions per minute must be increased in order to develop the same amount of pressure. This does not mean that the No. 5 fan will deliver either 5470 or 10200 cu. ft. of air at 480 R. P. M. through the same system of ducts, for the resistance of the system varies according to the well known law, directly as the square of the velocity and the system offering a resistance of one inch against the flow of 5470 cu. ft. of air per minute would have a resistance of $\left(\frac{10200}{5470}\right)^2 \times 1'' = 3.48''$, if the volume handled per minute were increased to 10200 cu. ft.

For each different pressure there is a certain air quantity which the fan will deliver with its best efficiency and there is a certain speed at which it should run; it will deliver more or less air against the same resistance but not with the same efficiency and not at the same speed. The steel plate fan with few blades will run slower for a reduced capacity but the multiblade type of fan, in which the maximum static pressure occurs at a point slightly below the capacity corresponding to the maximum efficiency, has to run faster in order to maintain the same static pressure whenever the volume delivered is either decreased or increased. This explains why there is a minimum speed in the capacity tables for each pressure, and since the maximum efficiency corresponds closely to this minimum speed, or, to speak more correctly, occurs at a capacity about 15% greater than that corresponding to the minimum speed, it aids greatly in the selection of the proper size of fan in cases where the volume to be handled is known and the frictional resistances of the system estimated by the usual methods.



Bowery Branch Y. M. C. A.
NEW YORK CITY

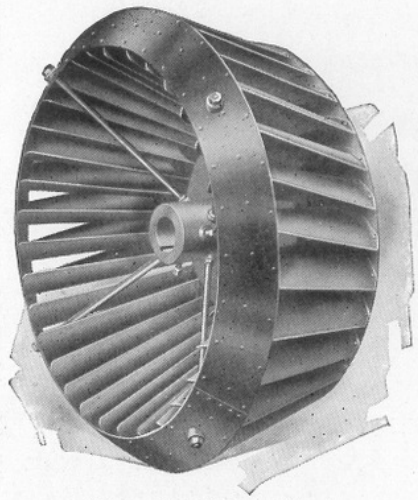


One of the Heating Units

"Buffalo"

DETAILS OF CONSTRUCTION

Wheel

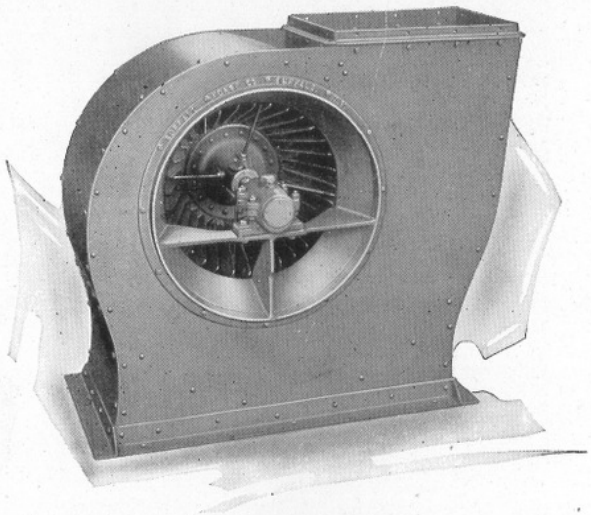


Niagara Conoidal Fan Wheel

The blast-wheel has 32 forward curved blades which are riveted at the front or inlet end to a conical flange and at the back to an extra heavy boiler plate disk or back plate. The peculiar shape of the blades affords a large riveting surface and consequent rigid support.

The hub is a one-piece casting curved and sloping toward the inlet of the wheel to deflect the entering air to the blades with the least resistance and loss in power. It is attached to the shaft by key and set screws and at the back widens out into a disk which is hot-riveted to the back plate.

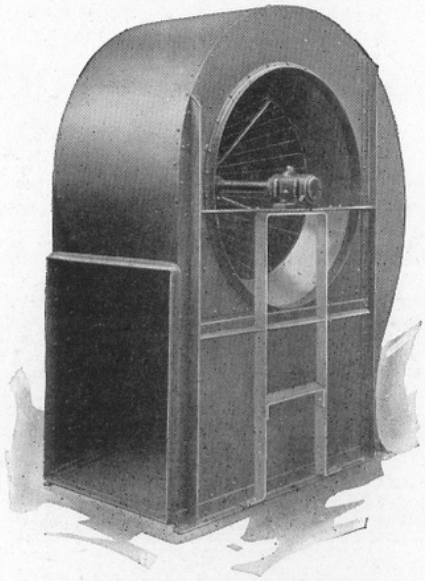
Four forged tie rods are screwed into the hub and are attached to the conical flange at the inlet edge of the wheel. These rods are placed at an angle to the inlet which offers the least resistance to the entering air.



No. 3 to No. 6 Niagara Conoidal Fan, Right-Hand Up Discharge.

Housing

The housing is of modified shape as previously described, constructed of heavy steel plate with riveted lap seams and braced with vertical and horizontal angle irons. It is supported on a heavy angle iron base frame drilled for holding-down bolts. The inlet is fitted with a cone in the space between the housing side-sheet and blast-wheel and has a minimum clearance with the inlet flange of the blast-wheel. The inner edge of the outlet opening is approximately tangent to periphery of wheel and height of outlet approximately equal to wheel diameter.



Full Housing, Niagara Conoidal Fan

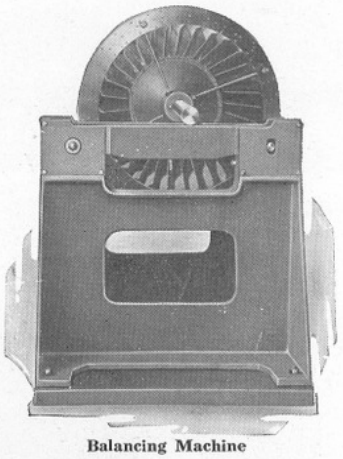
Shaft

Shaft is of open hearth steel, extra heavy, with a large factor of safety and accurately ground to size.

Balance

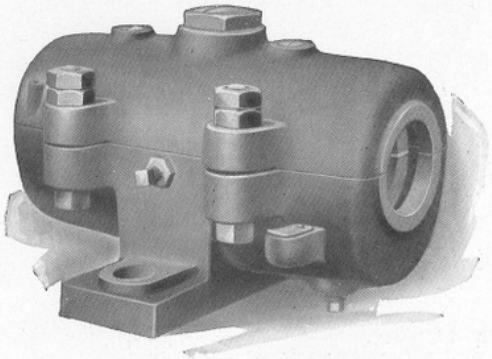
All fan wheels are given a standing balance by a special device which insures as accurate a degree of balance as is possible with any method of rotating balance. Wheel and shaft are assembled and mounted on a perfectly smooth surface, which is leveled on knife edge supports. The wheel is then balanced until it is absolutely stationary in whatever position it may be put.

All high speed blast-wheels are in addition given a running balance on a specially designed machine using a system similar to that employed for balancing automobile engines and high speed grinding wheels.



Balancing Machine

Great care is taken in the design of the entire fan to insure proper strength. weight and balance, so as to secure a practically vibrationless machine.



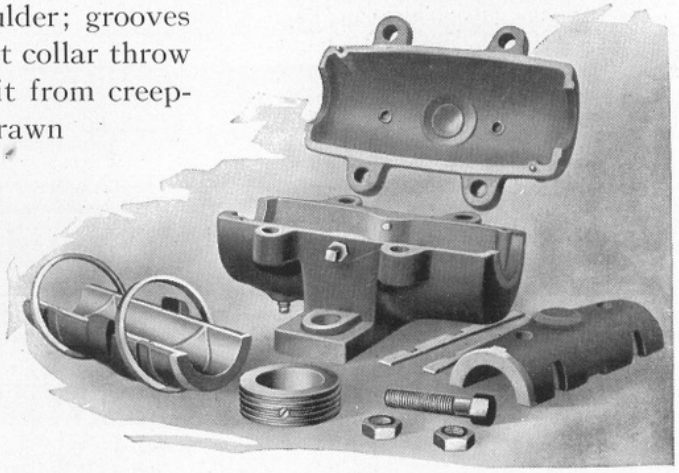
Buffalo Standard Bearing

Bearings

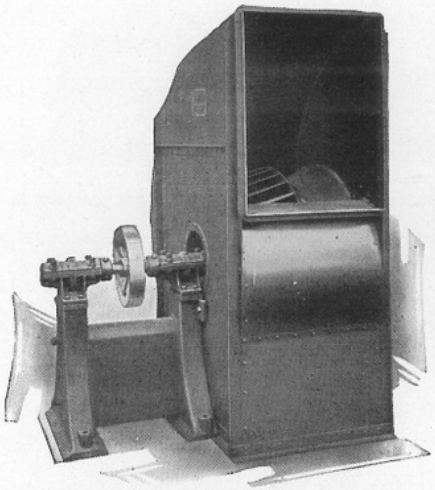
Bearings are dust proof and oil tight and consist of a split sleeve lined with babbitt and completely encased in the bearing housing. The two halves of the sleeve are mounted between spherical surfaces which allows the bearing to adjust itself in every direction and the housing provides a large oil reservoir in which two oil rings dip; overfilling of the bearing is prevented by the position of the opening through which the oil is supplied and which also indicates the oil level.

In the interest of safety the thrust collar is placed inside the bearing housing, running against a babbitted shoulder; grooves on the outside surface of the thrust collar throw off all oil and absolutely prevent it from creeping along the shaft and being drawn into the fan.

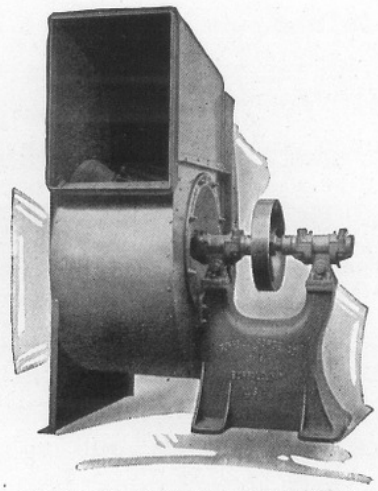
Most of the trouble experienced in fan practice can be laid directly to the lack of proper attention to the bearing design. The Buffalo Fan Bearing is acknowledged the best in the field.



Parts of Buffalo Standard Bearing



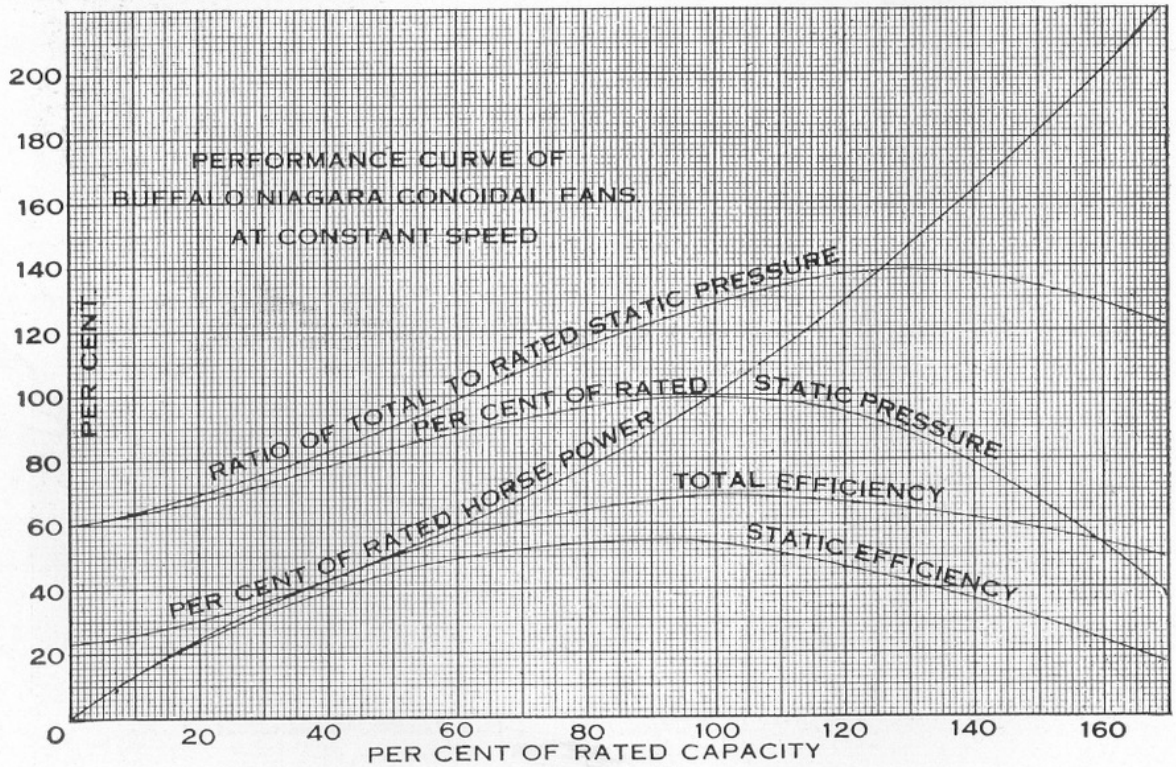
No. 7 to No. 13 Niagara Conoidal Fan
Overhung Blast-Wheel, Left-Hand
Top Horizontal Discharge

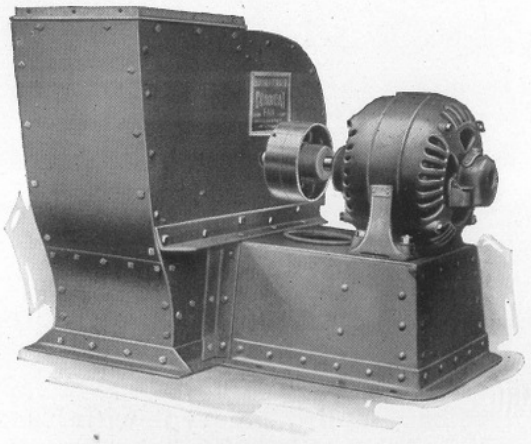


No. 3 to No. 6 Niagara Conoidal Fan,
Overhung Blast-Wheel, Right-Hand
Top Horizontal Discharge

Pulley Driven Fans

Pulley driven fans are built with either an overhung pulley or an overhung wheel as shown by the accompanying illustrations, the former being standard. With overhung pulley, the blast-wheel is mounted between bearings supported by the fan housing. The overhung wheel is used where a free and unobstructed inlet is desired; in this type, both bearings are on the same side of the fan: No. 6 and smaller fans have both bearings mounted on one pedestal, while No. 7 to No. 13 have two pedestals which are rigidly connected.



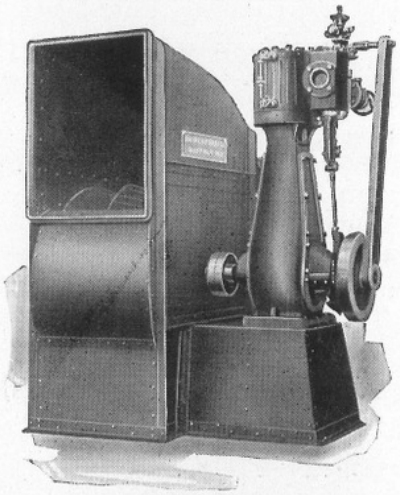


Full Housing Niagara Conoidal Fan, Right-Hand Up Discharge and Electric Motor

Direct Connected Units

Niagara Conoidal Type "N" fans may be furnished either direct connected to a steam engine or to an electric motor, the engine drive conveniently permitting wide speed variation. This company has a completely equipped engine department, making no less than nine distinct types, many of which have been designed especially for fan service. When sufficient pressure is not available, or location is such that apparatus requiring minimum attention is required, motor drive affords the solution.

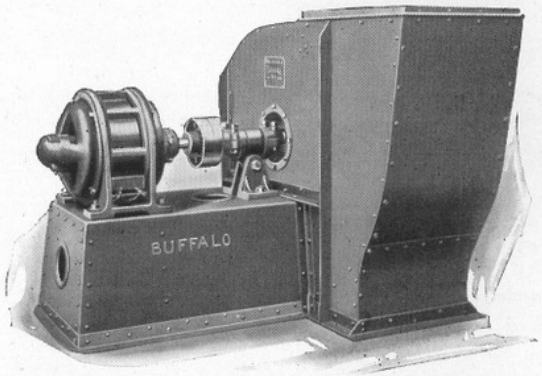
For fans direct connected to either motors or engines, a steel plate base attached to the fan housing may be used, or the fan and motor or engine mounted on separate concrete foundations.



Full Housing Niagara Conoidal Fan, Right-Hand Top Horizontal Discharge and Class "A" Engine

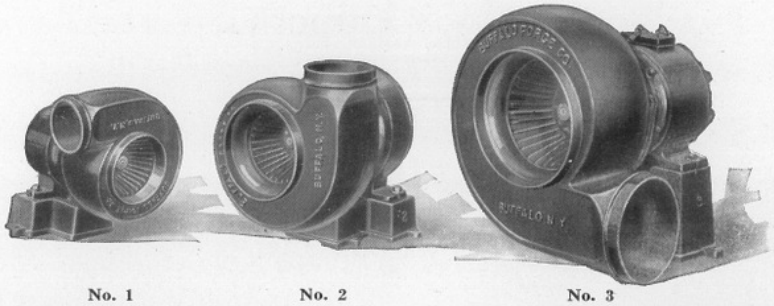
Where separate foundations are not used the bases are rigidly attached to the fan housings and are of box construction, tapering to a broad base and finished off with heavy angle iron. The base is stiffened across the interior with steel ribs and is made with corners rounded so as to give a finished appearance.

Motor driven exhausters may have the fan wheel overhung on the motor shaft, which is extended for this purpose, or a coupling may be used, with an outboard bearing. Flexible couplings are supplied when conditions make it advisable and require two bearings for the fan shaft.



Full Housing Niagara Conoidal Fan and Motor, Overhung Blast-Wheel, Left-Hand Up Discharge

A direct connected unit is the most advisable, for in the greater number of installations the fan is operating when the rest of machinery in the plant is not running. This would necessitate running a whole length of line shafting in case of a belted unit.



No. 1 No. 2 No. 3

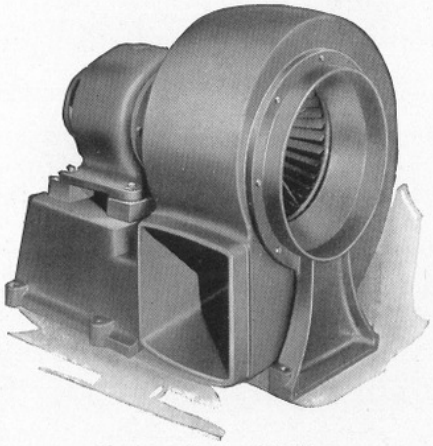
Buffalo Baby Conoidal Fans

The Baby Conoidal fan is of the high efficiency multiblade type with blast wheel of the same design as the Niagara Conoidal (Type N) which has met with such marked success. Housing is cast iron and can be swung around to discharge in any desired direction. This fan furnishes a large volume of air at a relatively low pressure with moderate speed. The wheel is accurately balanced, assuring a smooth-running, noiseless machine.

It is unexcelled for all kinds of drying and cooling purposes, for supplying fresh, cool air to offices, homes, staterooms, telephone booths, etc., and for exhausting smoke, fumes and foul air from kitchens, restaurants, lavatories, etc.

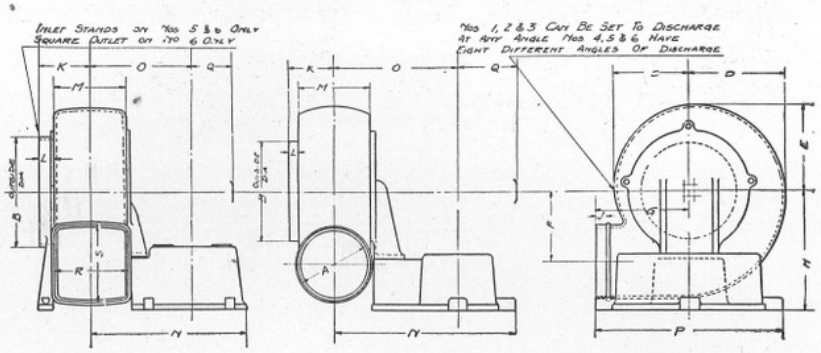
Cord and plug are furnished with No. 3 and smaller; no expense for installing, simply attach to an electric light socket. Outfits are furnished with 110 or 220 Volt D. C. motors and 110 or 220 Volt single phase, 60 cycle, A. C. motors. Nos. 4, 5 and 6 are also furnished with 110 or 220 Volt, two or three phase, 60 cycle motors.

Tables of dimensions and performance on page 15.



No. 6. Baby Conoidal Fan

Buffalo Baby Conoidal Fans



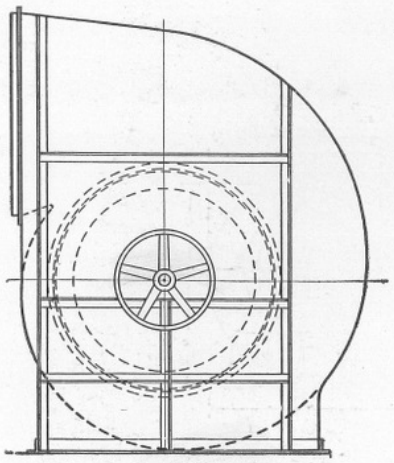
Dimensions in Inches

Size	A	B	C	D	E	F	G	H	J
1	3	4	3	3 7/8	3 7/16	2 15/16	3 3/4	4 3/4	7/16
2	4	5 1/2	3 21/32	4 29/32	4 9/32	3 3/4	4 3/4	6 1/4	5/8
3	5 3/4	7 3/4	5 3/16	7 1/16	6 1/8	5 7/16	6 1/2	8 3/4	3/4
4	8 3/4	11 3/8	7 9/16	10 7/16	9	7 5/8	10	13	2
5	10 7/8	14 1/4	9 3/8	12 7/8	11 1/8	9 3/8	11	16	2
6		17 1/2	11 3/16	15 7/16	13 5/16	11 3/8	11 1/2	19	2

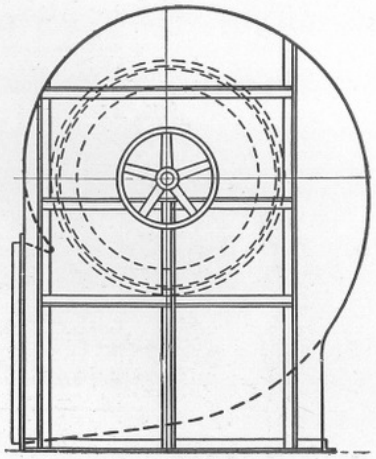
Size	K	L	M	N	O	P	Q	R	S
1	1 13/16	3/8	2 7/8	6 15/16	5	7 1/2	3	....	....
2	2 1/2	9/16	3 7/8	8 7/16	6 15/16	8 3/4	3	....	....
3	3 5/16	11/16	5 1/4	10 1/8	7 7/8	10 1/4	5	....	....
4	6	2	8	....	....	....	....	....	....
5	7 11/32	2 3/8	9 15/16	....	....	....	....	....	....
6	8 3/8	2 1/2	11 3/4	....	....	....	....	11 5/8	12 3/8

Size No.	Cubic Feet Air per Minute	H. P. Motor	R. P. M.	Shipping Weight Lbs.
1	90	1/30	1740	40
2	250	1/8	1740	55
3	325	1/8	1140	110
3	500	1/4	1740	115
4	690	1/4	870	450
4	900	1/2	1140	475
4	1400	1 1/2	1740	500
5	1100	1/2	690	625
5	1400	3/4	870	650
5	1800	1 1/2	1140	675
6	1800	1	690	850
6	2400	2	870	875
6	3100	3	1140	900

*2 H. P. Motor is used.



1—Full Housing
Top Horizontal

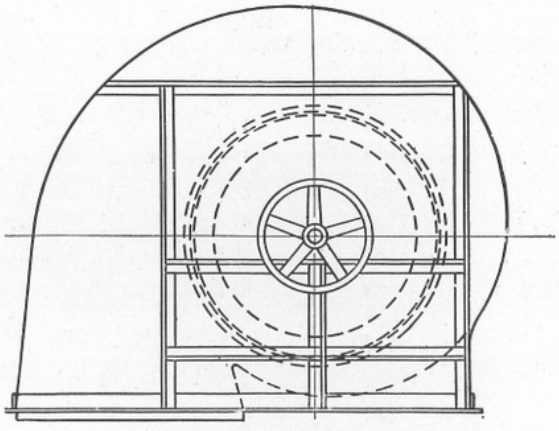


2—Full Housing
Bottom Horizontal

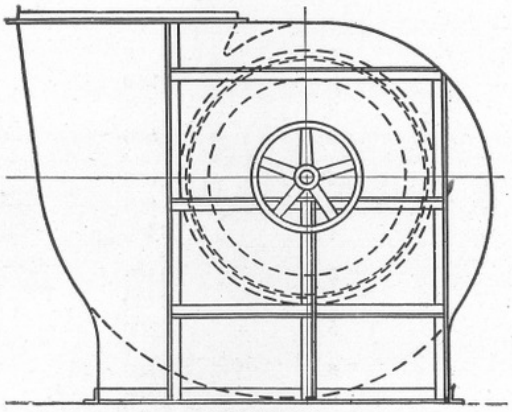
Fans

Fans and blowers are designated by the position of the discharge opening and are classified as follows:

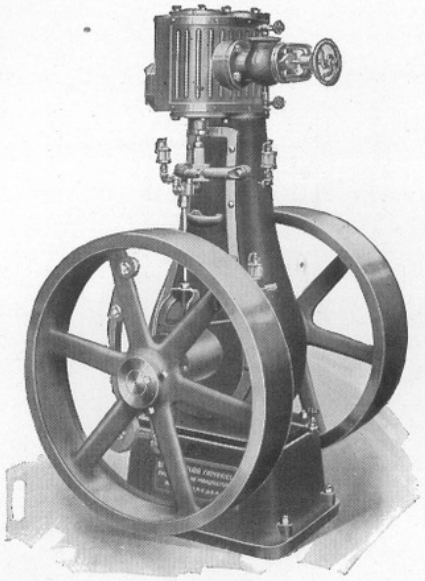
Top or bottom horizontal discharge, up or down blast, and special, the latter being described by giving the angle of discharge from the horizontal. The hand of a fan or blower is determined by the side on which the pulley or engine is located. When facing the discharge outlet, the fan is either left or right hand according to whether the pulley is on the left or right side as seen from this position.



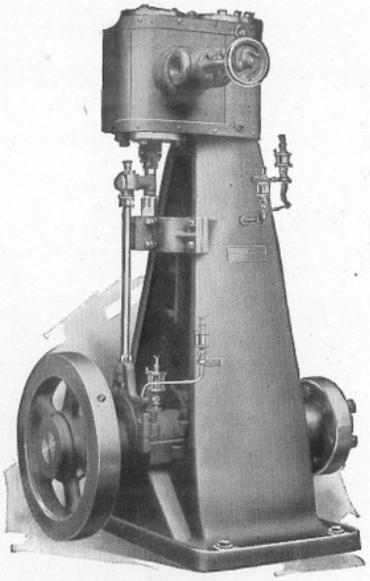
3—Full Housing
Down Discharge



Full Housing
Up Discharge



Class "A"



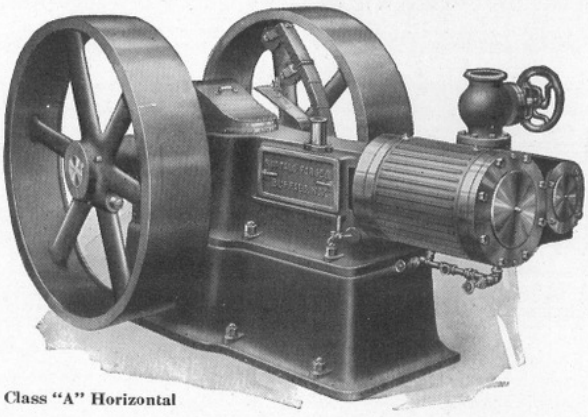
Class "O"

Buffalo Steam Engines

During many years of constant service in the building of engines it has been possible to bring the Buffalo Engine to a high state of perfection. Those who have directed its growth have aimed at the development of a simple, economical and, above all, a substantial engine, built in several types, each suited to its individual work. The limitations of floor spaces and heights, together with different engineering practice in mills and power plants, have been met with appropriate designs which evince a careful consideration of all the requirements.

The design of a steam engine calls for a series of compromises. To make these compromises in favor of the most beneficial results is the evolution of the best engine design, and to carry out these plans in a shop is the evolution of the best engine. Thus it is that the Buffalo Engine has a piston valve and bored guides, that the connecting rod has a small angularity, that the eccentric strap and simple transmission of its motion are used.

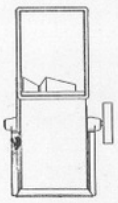
The very great extent of the use of the high-speed automatic steam engine makes it applicable to almost any service; and appreciating the fact that there is a demand for these engines of very compact design, giving great power in small space, the construction of the Buffalo Engine, which has been on the market for years, has been constantly improved, and now represents a perfected engine. They are designed to operate with the highest degree of economy. These engines will furnish under the most exacting conditions satisfactory and reliable power.



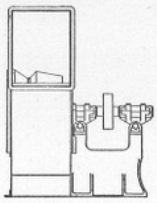
Class "A" Horizontal

"Buffalo"

Standard Arrangements



No. 1



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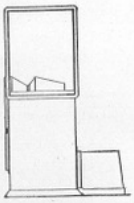


No. 3

No. 1. FOR BELT DRIVE
Single fan. Pulley overhung. Includes housing, wheel, shaft, two bearings and pulley.

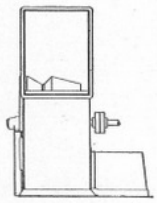
No. 2. FOR BELT DRIVE
Single fan. Wheel overhung. Includes housing, wheel, shaft, two bearings, pedestal and pulley.

No. 3. FOR DIRECT CONNECTION
Single fan. Includes housing, wheel and base. Wheel is overhung on engine or motor shaft.

No. 4. FOR DIRECT CONNECTION
Single fan. Includes housing, wheel, shaft, bearing in fan inlet, flanged coupling and base.

No. 5. FOR DIRECT CONNECTION
Single fan. Includes housing, wheel, shaft, bearing on drive side of fan, flanged coupling and base.

No. 6. FOR DIRECT CONNECTION
Single fan. Includes housing, wheel, shaft, two bearings, flexible coupling and base.



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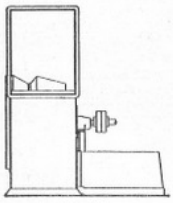

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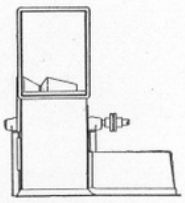

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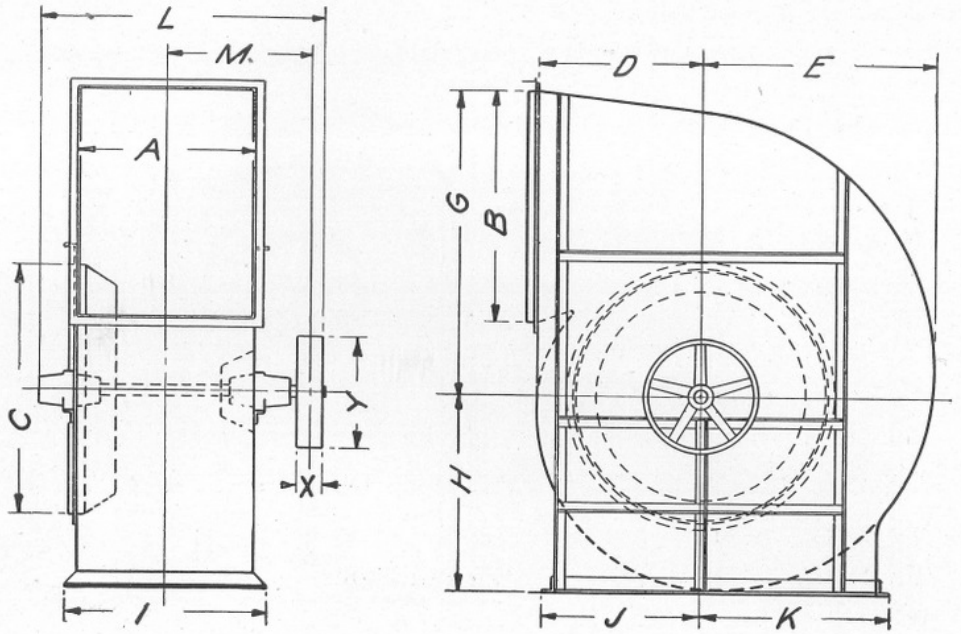
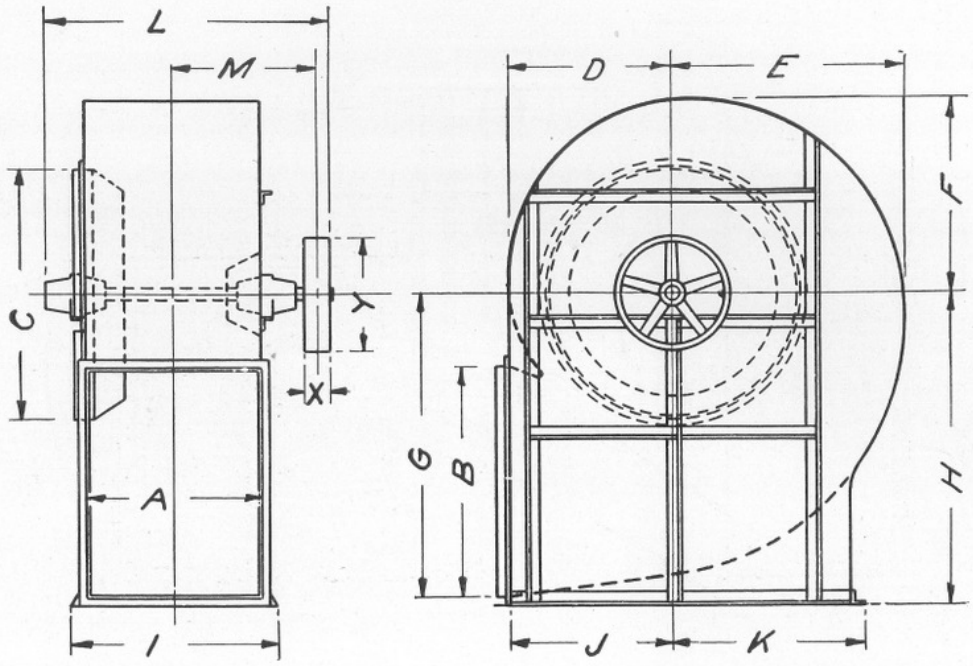


Overhung Pulley
Full Housing—Top Horizontal Discharge

Dimensions in Inches

Size	A	B	C	D	E	G	H	I	J	K	L	M	X	Y
3	12	15¾	17¼	11 3/16	15⅞	20 13/16	14	16¼	13¼	14	27½	15	3½	8
3½	14	18⅜	20	13	18 9/16	24¼	16½	18¼	15	16	29½	16	3½	9
4	16	21	22¾	14⅞	21 3/16	27¾	18½	20¼	17	18	31½	17	3½	10
4½	18	23⅝	25¾	16¾	23⅞	31¼	21	22¼	18¾	20	33½	18	3½	11
5	20	26¼	28½	18⅝	26½	34 11/16	23	24¼	19½	22	36	19½	3½	12
5½	22	28⅞	31½	20 7/16	29⅛	38 3/16	25	26¼	21¼	24	37	19½	3½	14
6	24	31½	34¼	22 5/16	31 15/16	41⅝	27½	28¼	23	26	41¾	22	4½	16
7	28	36¾	39¾	26	37⅛	48 9/16	32	32¼	26½	30	50	25½	5½	18
8	32	42	45½	29¾	42⅜	55½	36½	36¼	28¾	34	56	29	6½	20
9	36	47¼	51¼	33½	47 11/16	62 7/16	41	40¼	31¾	38	63½	32	8½	24
10	40	52½	56¾	37 3/16	53	69⅜	45¼	44¼	34¾	42	67½	34	8½	26
11	44	57¾	62½	40 15/16	58 5/16	76 5/16	50⅛	49¼	38⅜	46½	75½	38	8½	28
12	48	63	68	44⅝	63⅝	83¼	54¾	53¼	41⅞	50½	81	41	10	30
13	52	68¼	73½	48⅜	68⅞	90 3/16	59	58¼	45⅜	55	85½	43	11	34
14	56	73½	79	52 1/16	74⅜	97⅛	63	62¼	47⅜	59	95½	48	13	36
15	60	78¾	84¾	55¾	79½	104 1/16	67½	66¼	51⅜	63	100½	50	50	38
16	64	84	90¼	59½	84¾	111	72	71¼	54⅞	67½	109	54		40
17	68	89¼	96	63¼	90 1/16	117 15/16	76	76¼	58⅜	72	115	56½		44
18	72	94½	101½	66 15/16	95⅜	124⅞	80½	80¼	61⅜	76	122½	61		46
19	76	99¾	107	70 11/16	100 11/16	131 15/16	85	84¼	64⅜	80	128	63		48
20	80	105	112¾	74⅜	106	138¾	89½	88¼	67⅜	84	130	63½		50

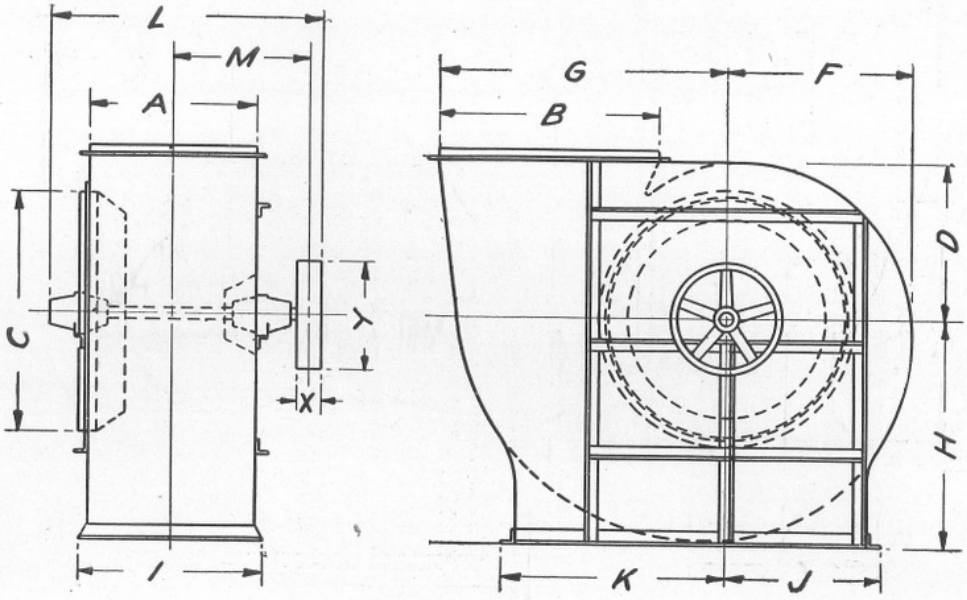


Overhung Pulley
Full Housing—Bottom Horizontal Discharge

Dimensions in Inches

Size	A	B	C	D	E	F	G	H	I	J	K	L	M	X	Y
3	12	15 3/4	17 1/4	11 3/16	15 7/8	13 1/4	20 13/16	22	16 1/4	11 3/16	14	27 1/2	15	3 1/2	8
3 1/2	14	18 3/8	20	13	18 9/16	15 7/16	24 1/4	25 1/2	18 1/4	13	16	29 1/2	16	3 1/2	9
4	16	21	22 3/4	14 7/8	21 3/16	17 5/8	27 3/4	29	20 1/4	14 7/8	18	31 1/2	17	3 1/2	10
4 1/2	18	23 5/8	25 3/4	16 3/4	23 7/8	19 7/8	31 1/4	32 1/2	22 1/4	16 3/4	20	33 1/2	18	3 1/2	11
5	20	26 1/4	28 1/2	18 5/8	26 1/2	22 1/16	34 11/16	36	24 1/4	18 5/8	22	36	19 1/2	3 1/2	12
5 1/2	22	28 7/8	31 1/2	20 7/16	29 1/8	24 1/4	38 3/16	39 1/2	26 1/4	20 7/16	24	37	19 1/2	3 1/2	14
6	24	31 1/2	34 1/4	22 5/16	31 13/16	26 1/2	41 5/8	43	28 1/4	22 5/16	26	41 3/4	22	4 1/2	16
7	28	36 3/4	39 3/4	26	37 1/8	30 7/8	48 9/16	50 3/8	32 1/4	26	30	50	25 1/2	5 1/2	18
8	32	42	45 1/2	29 3/4	42 3/8	35 5/16	55 1/2	56 3/4	36 1/4	29 3/4	34	56	29	6 1/2	20
9	36	47 1/4	51 1/4	33 1/2	47 11/16	39 3/4	62 7/16	64	40 1/4	33 1/2	38	63 1/2	32	8 1/2	24
10	40	52 1/2	56 3/4	37 3/16	53	44 1/8	69 3/8	70 3/4	44 1/4	37 3/16	42	67 1/2	34	8 1/2	26
11	44	57 3/4	62 1/2	40 15/16	58 5/16	48 1/2	76 5/16	78	49 1/4	40 15/16	46 1/2	75 1/2	38	8 1/2	28
12	48	63	68	44 5/8	63 5/8	52 15/16	83 1/4	85	53 1/4	44 5/8	50 1/2	81	41	10	30
13	52	68 1/4	73 1/2	48 3/8	68 7/8	57 3/8	90 3/16	92	58 1/4	48 3/8	55	85 1/2	43	11	34
14	56	73 1/2	79	52 1/16	74 3/16	61 3/4	97 1/8	99	62 1/4	52 1/16	59	95 1/2	48	13	36
15	60	78 3/4	84 3/4	55 3/4	79 1/2	66 3/16	104 1/16	106	66 1/4	55 3/4	63	100 1/2	50	15	38
16	64	84	90 1/4	59 1/2	84 3/4	70 5/8	111	112 1/2	71 1/4	59 1/2	67 1/2	109	54		40
17	68	89 1/4	96	63 1/4	90 1/16	75	117 15/16	119 1/2	76 1/4	63 1/4	72	115	56 1/2		44
18	72	94 1/2	101 1/2	66 15/16	95 3/8	79 7/16	124 7/8	126 1/2	80 1/4	66 15/16	76	122 1/2	61		46
19	76	99 3/4	107	70 11/16	100 11/16	83 13/16	131 13/16	133 1/2	84 1/4	70 11/16	80	128	63		48
20	80	105	112 3/4	74 3/8	106	88 1/4	138 3/4	140 1/2	88 1/4	74 3/8	84	130	63 1/2		50

"Buffalo"

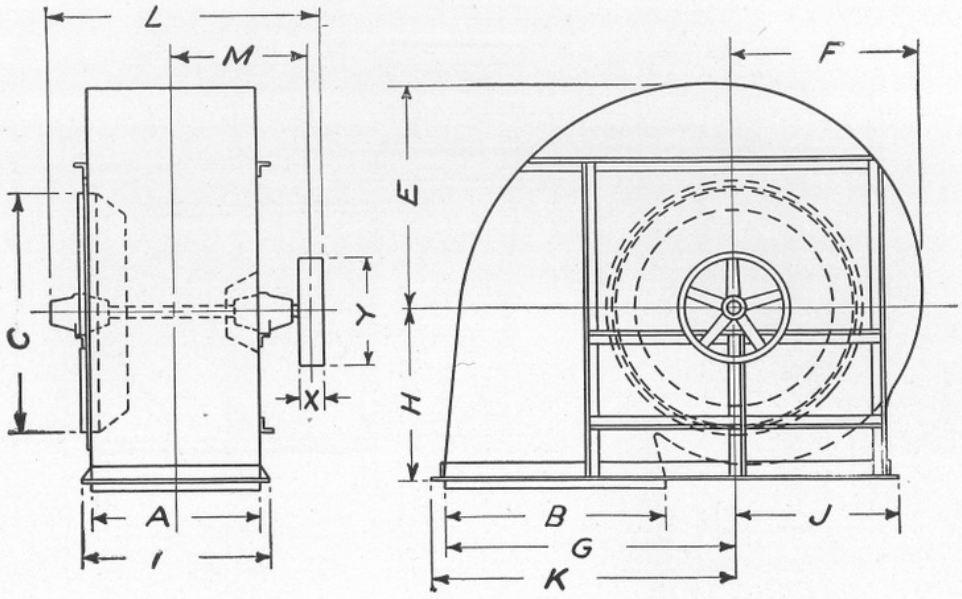


Overhung Pulley
Full Housing—Up Discharge

Dimensions in Inches

Size	A	B	C	D	F	G	H	I	J	K	L	M	X	Y
3	12	15¾	17¼	11⅜	13¼	20⅝	17	16¼	13¼	17	27½	15	3½	8
3½	14	18⅜	20	13	15⅞	24¼	19½	18¼	15	19½	29½	16	3½	9
4	16	21	22¾	14⅞	17⅝	27¾	22½	20¼	17	22	31½	17	3½	10
4½	18	23⅝	25¾	16¾	19⅞	31¼	25	22¼	18¾	24½	33½	18	3½	11
5	20	26¼	28½	18⅝	22⅛	34⅛	27½	24¼	19½	27	36	19½	3½	12
5½	22	28⅞	31½	20⅞	24¼	38⅜	30	26¼	21¼	29½	37	19½	3½	14
6	24	31½	34¼	22⅝	26½	41⅝	33	28¼	23	32	41¾	22	4½	16
7	28	36¾	39¾	26	30⅞	48⅝	38½	32¼	26½	37	50	25½	5½	18
8	32	42	45½	29¾	35⅝	55½	44	36¼	28¾	42	56	29	6½	20
9	36	47¼	51¼	33½	39¾	62⅞	49	40¼	31¾	47	63½	32	8½	24
10	40	52½	56¾	37⅜	44⅛	69⅜	54	44¼	34¾	52	67½	34	8½	26
11	44	57¾	62½	40⅝	48½	76⅝	59½	49¼	38⅜	57½	75½	38	8½	28
12	48	63	68	44⅝	52⅝	83¾	65½	53¼	41⅞	62½	81	41	10	30
13	52	68¼	73½	48⅜	57⅜	90⅜	70	58¼	45⅜	68	85½	43	11	34
14	56	73½	79	52⅛	61¾	97⅛	75½	62¼	47⅜	73	95½	48	13	36
15	60	78¾	84¾	55¾	66⅜	104⅛	80½	66¼	51⅜	78	100½	50	15	38
16	64	84	90¼	59½	70⅝	111	86	71¼	54⅞	83½	109	54		40
17	68	89¼	96	63¼	75	117⅝	91	76¼	58⅜	89	115	56½		44
18	72	94½	101½	66⅝	79⅞	124⅞	96½	80¼	61⅜	94	122½	61		46
19	76	99¾	107	70⅞	83⅜	131⅜	102	84¼	64⅜	99	128	63		48
20	80	105	112¾	74¾	88¼	138¾	107	88¼	67⅜	104	130	63½		50

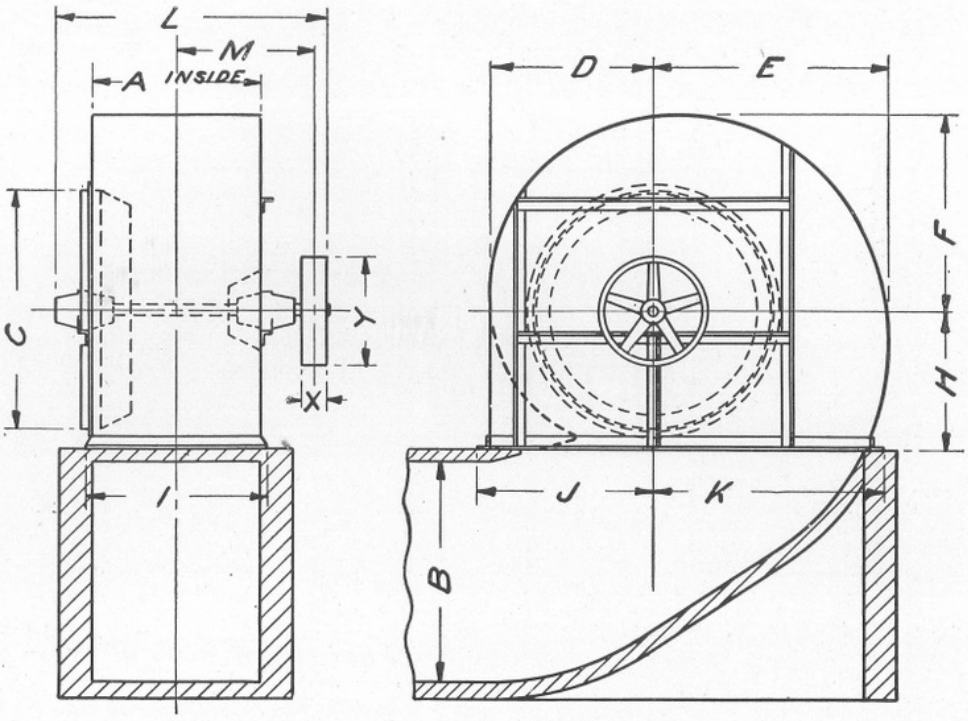
"Buffalo"



Overhung Pulley
Full Housing—Down Discharge

Dimensions in Inches

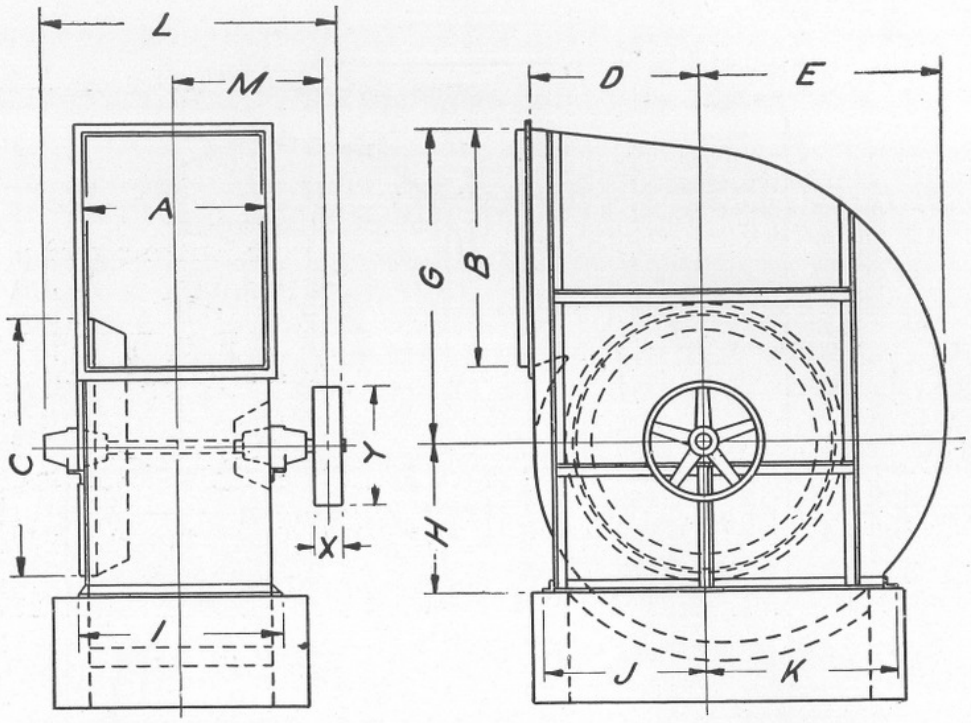
Size	A	B	C	E	F	G	H	I	J	K	L	M	X	Y
3	12	15 3/4	17 1/4	15 7/8	13 1/4	20 13/16	12	16 1/4	13 1/4	22 13/16	27 1/2	15	3 1/2	8
3 1/2	14	18 3/8	20	18 9/16	15 7/16	24 1/4	14	18 1/4	15	26 1/4	29 1/2	16	3 1/2	9
4	16	21	22 3/4	21 3/16	17 5/8	27 3/4	16	20 1/4	17	29 3/4	31 1/2	17	3 1/2	10
4 1/2	18	23 5/8	25 3/4	23 7/8	19 7/8	31 1/4	18	22 1/4	18 3/4	33 1/4	33 1/2	18	3 1/2	11
5	20	26 1/4	28 1/2	26 1/2	22 1/16	34 11/16	20	24 1/4	19 1/2	36 11/16	36	19 1/2	3 1/2	12
5 1/2	22	28 7/8	31 1/2	29 1/8	24 1/4	38 3/16	21 1/2	26 1/4	21 1/4	40 3/16	37	19 1/2	3 1/2	14
6	24	31 1/2	34 1/4	31 13/16	26 1/2	41 5/8	23 1/2	28 1/4	23	43 5/8	41 3/4	22	4 1/2	16
7	28	36 3/4	39 3/4	37 1/8	30 7/8	48 9/16	27	32 1/4	26 1/2	50 9/16	50	25 1/2	5 1/2	18
8	32	42	45 1/2	42 3/8	35 5/16	55 1/2	32	36 1/4	28 3/4	57 1/2	56	29	6 1/2	20
9	36	47 1/4	51 1/4	47 11/16	39 3/4	62 7/16	34 3/4	40 1/4	31 3/4	64 7/16	63	32	8 1/2	24
10	40	52 1/2	56 3/4	53	44 1/8	69 3/8	38 1/2	44 1/4	34 3/4	71 3/8	67 1/2	34	8 1/2	26
11	44	57 3/4	62 1/2	58 5/16	48 1/2	76 5/16	42	49 1/4	38 3/8	78 13/16	75 1/2	38	8 1/2	28
12	48	63	68	63 5/8	52 15/16	83 1/4	46	53 1/4	41 7/8	85 3/4	81	41	10	30
13	52	68 1/4	73 1/2	68 7/8	57 3/8	90 3/16	49 1/2	58 1/4	45 3/8	93 3/16	85 1/2	43	11	34
14	56	73 1/2	79	74 3/16	61 3/4	97 1/8	53	62 1/4	47 3/8	100 1/8	95 1/2	48	13	36
15	60	78 3/4	84 3/4	79 1/2	66 3/16	104 1/16	57	66 1/4	51 3/8	107 1/16	100 1/2	50	15	38
16	64	84	90 1/4	84 3/4	70 5/8	111	60 1/2	71 1/4	54 7/8	114 1/2	109	54		40
17	68	89 1/4	96	90 1/16	75	117 15/16	64 1/2	76 1/4	58 3/8	121 15/16	115	56 1/2		44
18	72	94 1/2	101 1/2	95 3/8	79 7/16	124 7/8	68	80 1/4	61 3/8	128 7/16	122 1/2	61		46
19	76	99 3/4	107	100 11/16	83 13/16	131 13/16	72	84 1/4	64 3/8	135 13/16	128	63		48
20	80	105	112 3/4	106	88 1/4	138 3/4	75 1/2	88 1/4	67 3/8	142 3/4	130	63 1/2		50



Overhung Pulley
Three-quarter Housing—Bottom Horizontal Discharge

Dimensions in Inches

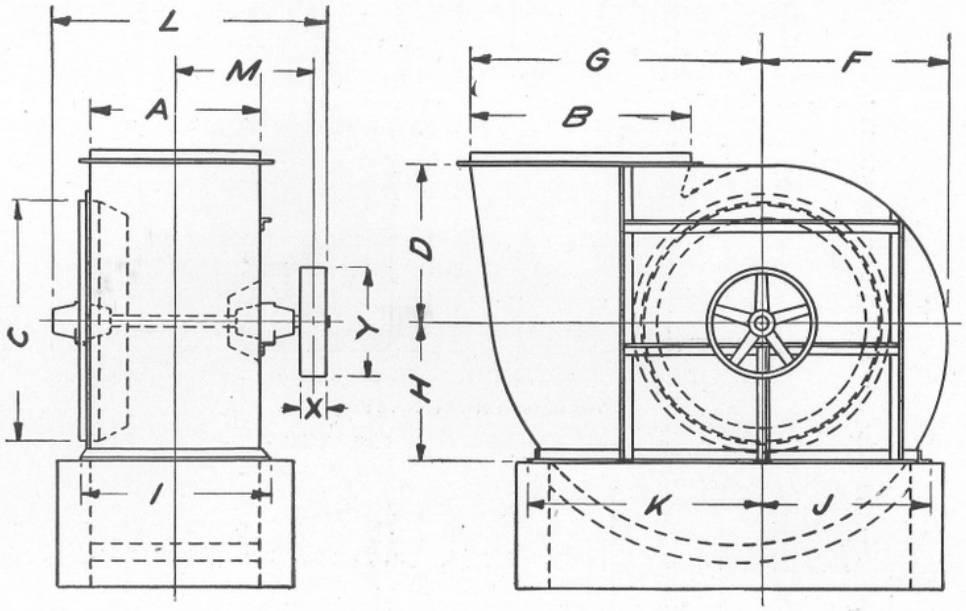
Size	A	B	C	D	E	F	H	I	J	K	L	M	X	Y
6	24	31 1/2	34 1/4	23 3/8	33 11/16	27 7/8	21	28 1/4	25 3/8	32 7/8	41 3/4	22	4 1/2	16
7	28	36 3/4	39 3/4	27 5/16	39 1/4	32 7/16	23 3/4	32 1/4	29 5/16	38 1/8	50	25 1/2	5 1/2	18
8	32	42	45 1/2	31 3/16	44 13/16	37 1/8	27	36 1/4	33 3/16	43 3/8	56	29	6 1/2	20
9	36	47 1/4	51 1/4	35 1/16	50 7/16	41 3/4	30	40 1/4	37 1/16	48 9/16	63 1/2	32	8 1/2	24
10	40	52 1/2	56 3/4	39	56 1/16	46 3/8	32 3/4	44 1/4	41	53 7/8	67 1/2	34	8 1/2	26
11	44	57 3/4	62 1/2	42 7/8	61 11/16	51	36	49 1/4	45 3/8	59 5/8	75 1/2	38	8 1/2	28
12	48	63	68	46 3/4	67 5/16	55 11/16	38 3/4	53 1/4	49 1/4	64 7/8	81	41	10	30
13	52	68 1/4	73 1/2	50 11/16	72 7/8	60 5/16	42	58 1/4	53 11/16	70 3/4	85 1/2	43	11	34
14	56	73 1/2	79	54 9/16	78 1/2	64 15/16	44 3/4	62 1/4	57 9/16	75 15/16	95 1/2	48	13	36
15	60	78 3/4	84 3/4	58 7/16	84 1/16	69 9/16	47 3/4	66 1/4	61 7/16	81 1/8	100 1/2	50	15	38
16	64	84	90 1/4	62 3/8	89 11/16	74 1/4	51 1/2	71 1/4	65 7/8	86 7/8	109	54		40
17	68	89 1/4	96	66 1/4	95 5/16	78 7/8	54 1/4	76 1/4	70 1/4	92 11/16	115	56 1/2		44
18	72	94 1/2	101 1/2	70 1/8	100 15/16	83 1/2	57	80 1/4	74 1/8	97 15/16	122 1/2	61		46
19	76	99 3/4	107	74 1/16	106 1/2	88 1/8	59 3/4	84 1/4	78 1/16	103 1/4	128	63		48
20	80	105	112 3/4	77 15/16	112 1/8	92 13/16	62 3/4	88 1/4	81 15/16	108 3/8	130	63 1/2		50



Overhung Pulley
Three-quarter Housing—Top Horizontal Discharge

Dimensions in Inches

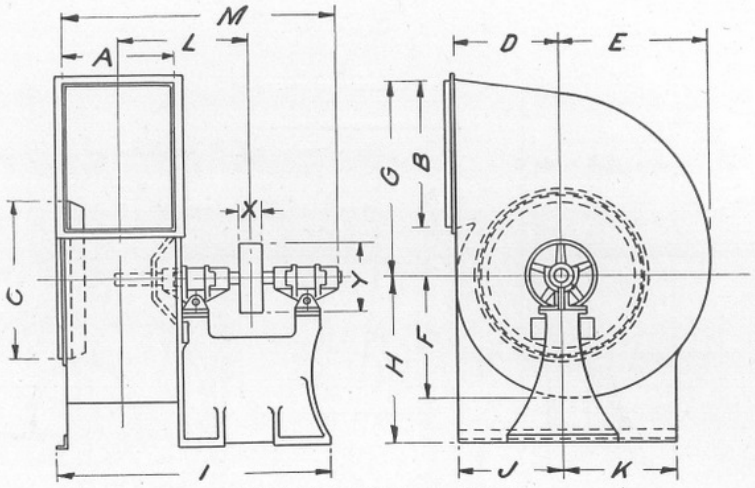
Size	A	B	C	D	E	G	H	I	J	K	L	M	X	Y
6	24	31½	34¼	22 5/16	31 3/16	41 5/8	21	28¼	23	24 11/16	41¾	22	4½	16
7	28	36¾	39¾	26	37⅛	48 9/16	23¾	32¼	26½	28¾	50	25½	5½	18
8	32	42	45½	29¾	42⅜	55½	27	36¼	28¾	32⅞	56	29	6½	20
9	36	47¼	51¼	33½	47 11/16	62 7/16	30	40¼	31¾	36 11/16	63½	32	8½	24
10	40	52½	56¾	37 3/16	53	69⅜	32¾	44¼	34¾	40⅞	67½	34	8½	26
11	44	57¾	62½	40 5/16	58 5/16	76 5/16	36	49¼	38⅜	45½	75½	38	8½	28
12	48	63	68	44⅝	63⅝	83¼	38¾	53¼	41⅞	49½	81	41	10	30
13	52	68¼	73½	48⅜	68⅞	90 3/16	42	58¼	45⅜	54 3/16	85½	43	11	34
14	56	73½	79	52 1/16	74 3/16	97⅛	44¾	62¼	47⅜	58¼	95½	48	13	36
15	60	78¾	84¾	55¾	79½	104 1/16	47¾	66¼	51⅜	62⅛	100½	50	15	38
16	64	84	90¼	59½	84¾	111	51½	71¼	54⅞	66¾	109	54		40
17	68	89¼	96	63¼	90 1/16	117 15/16	54¼	76¼	58⅜	71 5/16	115	56½		44
18	72	94½	101½	66 15/16	95 15/16	124⅞	57	80¼	61⅜	75 7/16	122½	61		46
19	76	99¾	107	70 11/16	100 11/16	131 13/16	59¾	84¼	64⅜	79½	128	63		48
20	80	105	112¾	74⅜	106	138¾	62¾	88¼	67⅜	83⅜	130	63½		50



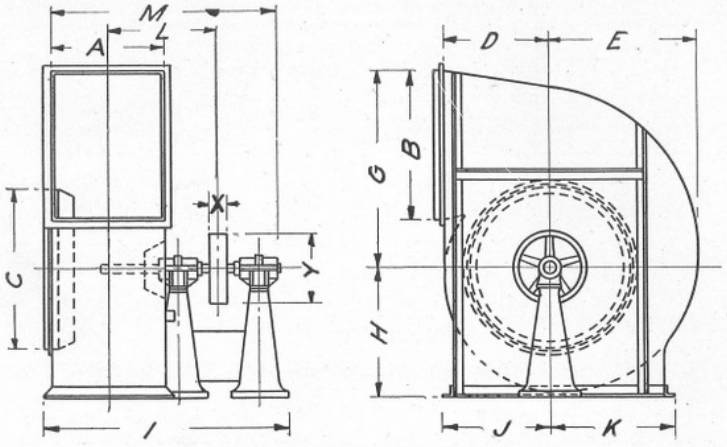
Overhung Pulley
Three-quarter Housing—Up Discharge

Dimensions in Inches

Size	A	B	C	D	F	G	H	I	J	K	L	M	X	Y
6	24	31 1/2	34 1/4	22 5/16	26 1/2	41 5/8	21	28 1/4	23 3/4	33 1/4	41 3/4	22	4 1/2	16
7	28	36 3/4	39 3/4	26	30 7/8	48 9/16	23 3/4	32 1/4	27 5/8	38 5/8	50	25 1/2	5 1/2	18
8	32	42	45 1/2	29 3/4	35 5/16	55 1/2	27	36 1/4	31 1/2	44 1/8	56	29	6 1/2	20
9	36	47 1/4	51 1/4	33 1/2	39 3/4	62 7/16	30	40 1/4	35 1/8	49 3/8	63 1/2	32	8 1/2	24
10	40	52 1/2	56 3/4	37 3/16	44 1/8	69 3/8	32 3/4	44 1/4	39	54 7/8	67 1/2	34	8 1/2	26
11	44	57 3/4	62 1/2	40 15/16	48 1/2	76 5/16	36	49 1/4	43 5/16	60 3/4	75 1/2	38	8 1/2	28
12	48	63	68	44 5/8	52 15/16	83 1/4	38 3/4	53 1/4	47 1/8	66 1/4	81	41	10	30
13	52	68 1/4	73 1/2	48 3/8	57 3/8	90 5/16	42	58 1/4	51 1/2	72 1/4	85 1/2	43	11	34
14	56	73 1/2	79	52 1/16	61 3/4	97 1/8	44 3/4	62 1/4	55 1/4	77 5/8	95 1/2	48	13	36
15	60	78 3/4	84 3/4	55 3/4	66 3/16	104 1/16	47 3/4	66 1/4	59	82 7/8	100 1/2	50	15	38
16	64	84	90 1/4	59 1/2	70 5/8	111	51 1/2	71 1/4	63 5/16	88 7/8	109	54		40
17	68	89 1/4	96	63 1/4	75	117 15/16	54 1/4	76 1/4	67 5/8	94 13/16	115	56 1/2		44
18	72	94 1/2	101 1/2	66 15/16	79 7/16	124 7/8	57	80 1/4	71 1/2	100 1/4	122 1/2	61		46
19	76	99 3/4	107	70 11/16	83 13/16	131 5/16	59 3/4	84 1/4	75 1/4	105 3/4	128	63		48
20	80	105	112 3/4	74 3/8	88 1/4	138 3/4	62 3/4	88 1/4	79	111	130	63 1/2		50



This Style for No. 3 to No. 6 Fans

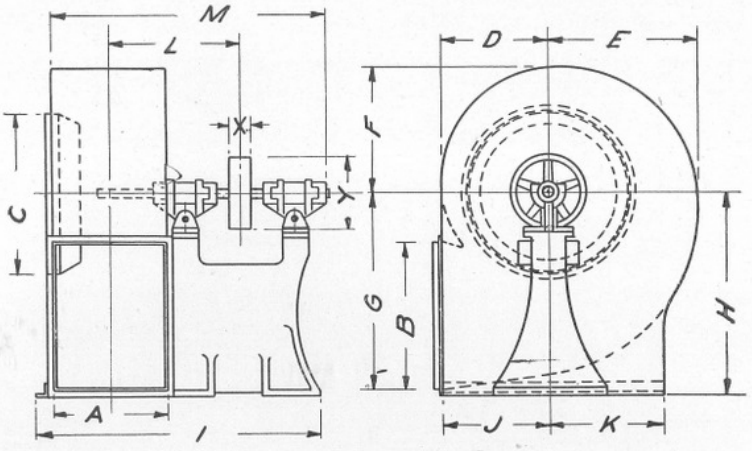


This Style for No. 7 to No. 13 Fans

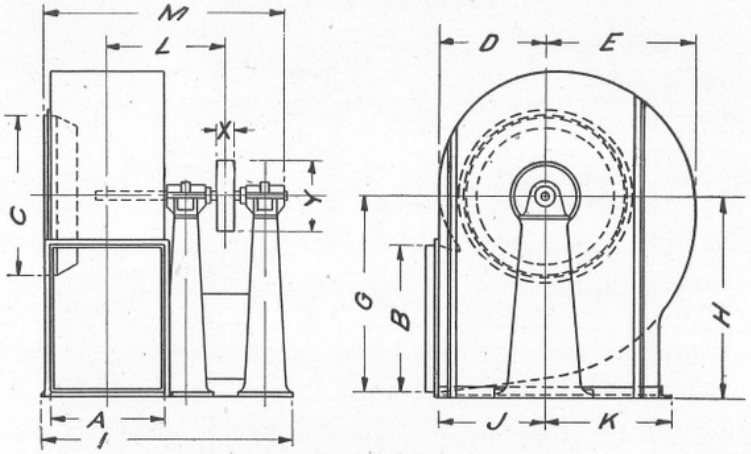
Overhung Wheel
Full Housing—Top Horizontal Discharge

Dimensions in Inches

Size	A	B	C	D	E	F	G	H	I	J	K	L	M	X	Y
3	12	15¾	17¼	11 3/16	15 7/8	13¼	20 5/16	18	32¼	11 3/16	12	14 7/8	31 3/8	3½	8
3½	14	18 3/8	20	13	18 9/16	15 7/16	24¼	20¾	36 9/16	13	14	16 3/8	34½	3½	9
4	16	21	22¾	14 7/8	21 3/16	17 5/8	27¾	24	40	14 7/8	16	18 3/8	38¾	3½	10
4½	18	23 5/8	25¾	16¾	23 7/8	19 7/8	31¼	26 5/8	43¾	16¾	18	20½	43½	3½	11
5	20	26¼	28½	18 5/8	26½	22 1/16	34 11/16	29¼	47 5/16	17½	20	22	46½	3½	12
5½	22	28 7/8	31½	20 7/16	29 1/8	24¼	38 3/16	32	51¼	19¼	22	24 1/8	50¾	3½	14
6	24	31½	34½	22 5/16	31 13/16	26½	41 5/8	35	54¼	21	24	25 5/8	53¾	4½	16
7	28	36¾	39¾	26	37 1/8		48 9/16	32	60	26½	30	28 3/8	60	5½	18
8	32	42	45½	29¾	42 3/8		55½	36½	64	28¾	34	30 3/8	64	6½	20
9	36	47¼	51¼	33½	47 11/16		62 7/16	41	68	31¾	38	32 3/8	69	8½	24
10	40	52½	56¾	37 3/16	53		69 3/8	45¼	85¾	34¾	42	40 5/8	84½	8½	26
11	44	57¾	62½	40 15/16	58 5/16		76 5/16	50 1/8	90¼	38 3/8	46½	42 5/8	88½	8½	28
12	48	63	68	44 5/8	63 5/8		83¼	54¾	94¼	41 7/8	50½	44 7/8	93½	10	30
13	52	68¼	73½	48 3/8	68 7/8		90 3/16	59	98¾	45 3/8	55	46 5/8	97½	11	34



This Style for No. 3 to No. 6 Fans



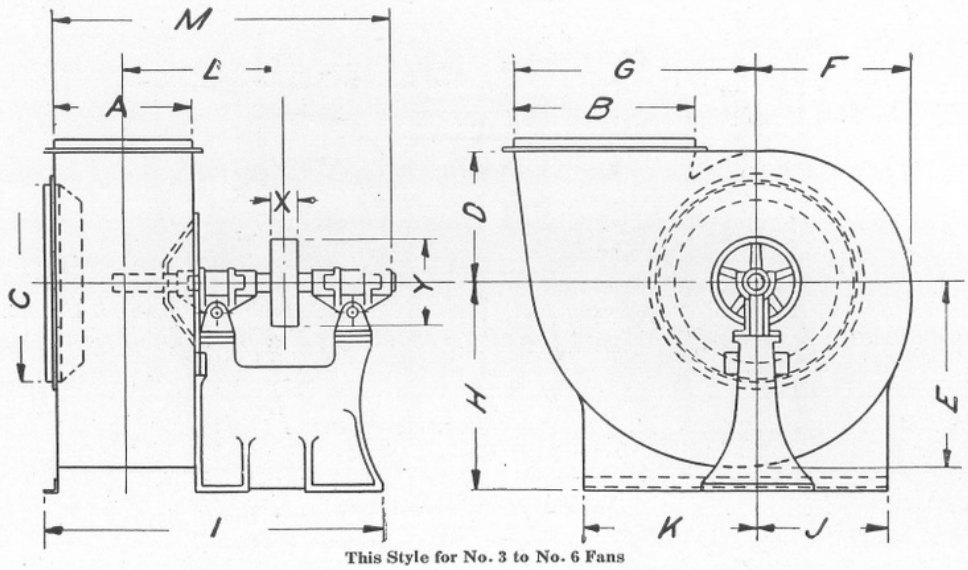
This Style for No. 7 to No. 10 Fans

Overhung Wheel
Full Housing—Bottom Horizontal Discharge

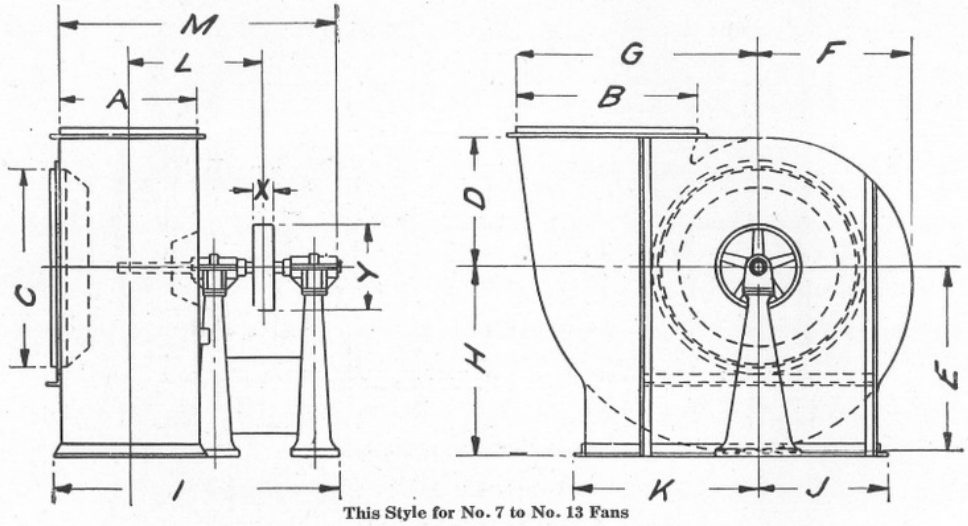
Dimensions in Inches

Size	A	B	C	D	E	F	G	H	I	J	K	L	M	X	Y
3	12	15 3/4	17 1/4	11 3/16	15 7/8	13 1/4	20 13/16	23 3/8	32	11 3/16	12	14 7/8	31 3/8	3 1/2	8
3 1/2	14	18 3/8	20	13	18 9/16	15 7/16	24 1/4	27 1/4	36 3/4	13	14	16 3/8	34 1/2	3 1/2	9
4	16	21	22 3/4	14 7/8	21 3/16	17 5/8	27 3/4	30 5/8	39 3/4	14 7/8	16	18 3/8	38 3/4	3 1/2	10
4 1/2	18	23 5/8	25 3/4	16 3/4	23 7/8	19 7/8	31 1/4	34 1/2	43 3/4	16 3/4	18	20 1/2	43 1/2	3 1/2	11
5	20	26 1/4	28 1/2	18 5/8	26 1/2	22 1/16	34 11/16	38 1/2	48	18 5/8	20	22	46 1/2	3 1/2	12
5 1/2	22	28 7/8	31 1/2	20 7/16	29 1/8	24 1/4	38 3/16	41 7/8	51	20 7/16	22	24 1/8	50 3/4	3 1/2	14
6	24	31 1/2	34 1/4	22 5/16	31 13/16	26 1/2	41 5/8	45 3/4	54	22 5/16	24	25 5/8	53 3/4	4 1/2	16
7	28	36 3/4	39 3/4	26	37 1/8	30 7/8	48 9/16	50 3/8	66 3/4	28	30	31 1/8	64	5 1/2	18
8	32	42	45 1/2	29 3/4	42 3/8	35 5/16	55 1/2	56 3/4	70 3/4	31 3/4	34	33 1/8	68	6 1/2	20
9	36	47 1/4	51 1/4	33 1/2	47 11/16	39 3/4	62 7/16	64	77 3/4	35 1/2	38	36 5/8	76	8 1/2	24
10	40	52 1/2	56 3/4	37 3/16	53	44 1/8	69 3/8	70 3/4	85 3/4	39 3/16	42	40 5/8	85 1/2	8 1/2	26

"Buffalo"



This Style for No. 3 to No. 6 Fans

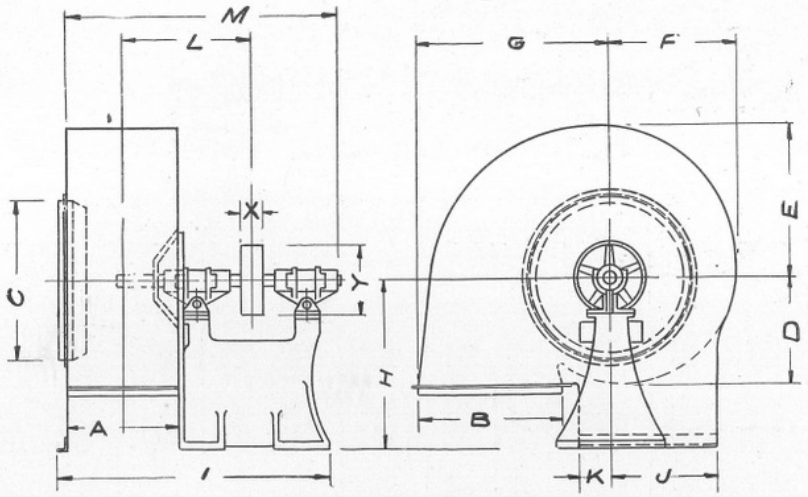


This Style for No. 7 to No. 13 Fans

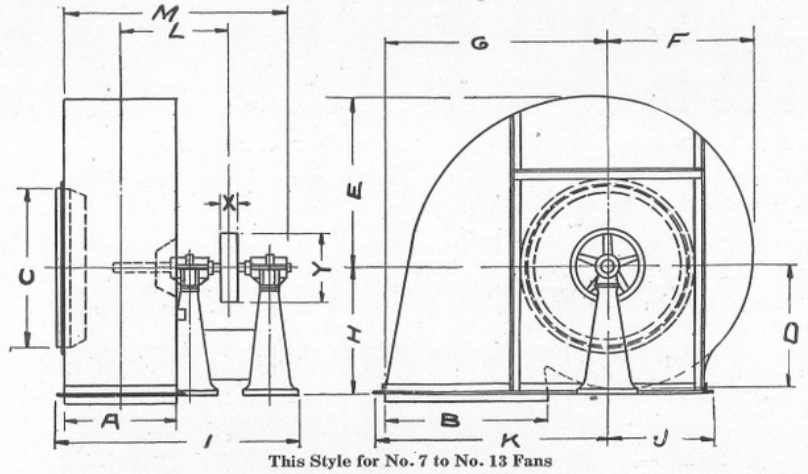
Overhung Wheel—Full Housing—Up Discharge

Dimensions in Inches

Size	A	B	C	D	E	F	G	H	I	J	K	L	M	X	Y
3	12	15¾	17¼	11 3/16	15⅞	13¼	20 13/16	18	32¼	11¼	15	14⅞	31⅜	3½	8
3½	14	18⅜	20	13	18 9/16	15 7/16	24¼	20¾	36 9/16	13	17½	16⅜	34½	3½	9
4	16	21	22¾	14⅞	21 3/16	17⅝	27¾	24	40	15	20	18⅜	38¾	3½	10
4½	18	23⅝	25¾	16¾	23⅞	19⅞	31¼	26⅝	43¾	16¾	22½	20½	43½	3½	11
5	20	26¼	28½	18⅝	26½	22 1/16	34 11/16	29¼	47 5/16	17½	25	22	46½	3½	12
5½	22	28⅞	31½	20 7/16	29⅛	24¼	38 3/16	32	51¼	19¼	27½	24⅛	50¾	3½	14
6	24	31½	34¼	22 5/16	31 15/16	26½	41⅝	35	54¼	21	30	25⅝	53¾	4½	16
7	28	36¾	39¾	26	37⅛	30⅞	48 9/16	38½	60	26½	37	28⅜	60	5½	18
8	32	42	45½	29¾	42⅜	35 5/16	55½	44	64	28¾	42	30⅜	64	6½	20
9	36	47¼	51¼	33½	47 11/16	39¾	62 7/16	49	68	31¾	47	32⅜	69	8½	24
10	40	52½	56¾	37 3/16	53	44⅛	69⅜	54	85¾	34¾	52	40⅝	84½	8½	26
11	44	57¾	62½	40 5/16	58 5/16	48½	76 5/16	59½	90¼	38⅜	57½	42⅝	88½	8½	28
12	48	63	68	44⅝	63⅝	52 15/16	83¼	65½	94¼	41⅞	62½	44⅝	93½	10	30
13	52	68¼	73½	48⅜	68⅞	57⅜	90 3/16	70	98¾	45⅜	68	46⅝	97½	11	34



This Style for No. 3 to No. 6 Fans



This Style for No. 7 to No. 13 Fans

Overhung Wheel
Full Housing—Down Discharge

Dimensions in Inches

Size	A	B	C	D	E	F	G	H	I	J	K	L	M	X	Y
3	12	15¾	17¼	11 3/16	15⅞	13¼	20 13/16	18	32¼	11¼	3	14⅞	31⅜	3½	8
3½	14	18⅜	20	13	18 9/16	15 7/16	24¼	20¾	36 9/16	13	3¾	16⅜	34½	3½	9
4	16	21	22¾	14⅞	21 3/16	17⅝	27¾	24	40	15	4¾	18⅜	38¾	3½	10
4½	18	23⅝	25¾	16¾	23⅞	19⅞	31¼	26⅝	43¾	16¾	5½	20½	43½	3½	11
5	20	26¼	28½	18⅝	26½	22 1/16	34 11/16	29¼	47 5/16	17½	6¼	22	46½	3½	12
5½	22	28⅞	31½	20 7/16	29⅛	24¼	38 3/16	32	51¼	19¼	7¼	24⅛	50¾	3½	14
6	24	31½	34¼	22 5/16	31 13/16	26½	41⅝	35	54¼	21	8	25⅜	53¾	4½	16
7	28	36¾	39¾	26	37⅛	30⅞	48 9/16	27	60	26½	50 9/16	28⅜	60	5½	18
8	32	42	45½	29¾	42⅜	35 5/16	55½	32	64	28¾	57½	30⅜	64	6½	20
9	36	47¼	51¼	33½	47 11/16	39¾	62 7/16	34¾	68	31¾	64 7/16	32⅝	69	8½	24
10	40	52½	56¾	37 3/16	53	44⅛	69⅜	38½	85¾	34¾	71⅜	40⅝	84½	8½	26
11	44	57¾	62½	40 15/16	58 5/16	48½	76 5/16	42	90¼	38⅜	78 13/16	42⅝	88½	8½	28
12	48	63	68	44⅝	63⅝	52 15/16	83¼	46	94¼	41⅞	85¾	44⅝	93½	10	30
13	52	68¼	73½	48⅜	68⅞	57⅜	90 3/16	49½	98¾	45⅜	93 3/16	46⅝	97½	11	34

Capacities of Buffalo Niagara Conoidal Fans—(Type N) Under Average Working Conditions

70° F and 29.92″ Barometer

Size	Diameter of Blast Wheel Inches	Area of Outlet Square Ft.	½″ Static Pressure = 0.288 Ounces R.P.M.	Volume Cubic Ft. per Min.	H.P.	¾″ Static Pressure = 0.433 Ounces R.P.M.	Volume Cubic Ft. per Min.	H.P.	1″ Static Pressure = 0.577 Ounces R.P.M.	Volume Cubic Ft. per Min.	H.P.	1½″ Static Pressure = 0.865 Ounces R.P.M.	Volume Cubic Ft. per Min.	H.P.
3	15⅝	1.31	544	1,945	0.28	668	2,380	0.51	770	2,750	0.78	943	3,365	1.45
3½	18⅛	1.79	465	2,642	0.38	572	3,240	0.69	660	3,740	1.06	809	4,580	1.97
4	20½	2.33	408	3,459	0.50	500	4,230	0.90	577	4,895	1.39	709	5,980	2.58
4½	23⅛	2.95	362	4,375	0.63	445	5,350	1.14	514	6,195	1.75	630	7,575	3.26
5	26⅛	3.64	326	5,400	0.77	400	6,610	1.41	462	7,645	2.16	566	9,350	4.03
5½	28¾	4.41	296	6,540	0.94	364	8,000	1.71	420	9,250	2.62	515	11,320	4.87
6	31⅜	5.25	272	7,780	1.11	334	9,525	2.03	386	11,000	3.12	472	13,450	5.80
7	36½	7.14	233	10,590	1.52	286	12,950	2.77	330	14,980	4.24	405	18,330	7.90
8	42	9.33	204	13,820	1.98	250	16,910	3.61	289	19,550	5.54	354	23,950	10.30
9	47	11.81	181	17,500	2.51	222	21,400	4.57	256	24,750	7.01	314	30,300	13.05
10	52	14.58	163	21,600	3.09	200	26,450	5.65	231	30,550	8.65	283	37,400	16.10
11	58	17.64	148	26,150	3.74	182	32,000	6.85	210	37,000	10.48	257	45,250	19.48
12	63	21.00	136	31,100	4.45	167	38,100	8.15	193	44,050	12.48	236	53,900	23.20
13	68	24.65	125	36,500	5.22	154	44,700	9.56	178	51,650	14.62	217	63,200	27.20
14	73	28.68	116	42,350	6.06	143	51,900	11.08	165	60,000	16.96	202	73,200	31.55
15	78	32.80	109	48,550	6.95	133	59,500	12.70	154	68,850	19.49	189	84,100	36.25
16	84	37.32	102	55,300	7.91	125	67,750	14.46	144	78,300	22.15	177	95,750	41.20
17	89	42.14	96	62,500	8.95	118	76,500	16.32	136	88,400	25.00	167	108,000	46.50
18	94	47.24	91	70,000	10.01	111	85,600	18.30	128	99,100	28.05	157	121,200	52.15
19	99	52.63	86	78,000	11.15	105	95,500	20.40	122	110,200	31.25	149	135,000	58.05
20	105	58.32	82	86,450	12.36	100	105,850	22.60	116	122,200	34.65	142	149,500	64.45

Size	Diameter of Blast Wheel Inches	Area of Outlet Square Ft.	2″ Static Pressure = 1.154 Ounces R.P.M.	Volume Cubic Ft. per Min.	H.P.	2½″ Static Pressure = 1.442 Ounces R.P.M.	Volume Cubic Ft. per Min.	H.P.	3″ Static Pressure = 1.734 Ounces R.P.M.	Volume Cubic Ft. per Min.	H.P.	3½″ Static Pressure = 2.019 Ounces R.P.M.	Volume Cubic Ft. per Min.	H.P.
3	15⅝	1.31	1088	3,890	2.21	1215	4,350	3.08	1332	4,770	4.05	1443	5,150	5.13
3½	18⅛	1.79	934	5,300	3.01	1010	5,930	4.19	1141	6,495	5.53	1238	7,010	6.98
4	20½	2.33	817	6,920	3.93	912	7,730	5.47	1000	8,480	7.22	1082	9,160	9.12
4½	23⅛	2.95	726	8,750	4.97	810	9,795	6.93	890	10,740	9.14	964	11,590	11.55
5	26⅛	3.64	655	10,820	6.15	730	12,070	8.55	800	13,250	11.26	868	14,300	14.25
5½	28¾	4.41	595	13,100	7.43	664	14,600	10.35	728	16,030	13.62	789	17,300	17.25
6	31⅜	5.25	545	15,550	8.85	609	17,390	12.30	667	19,090	16.22	723	20,600	20.55
7	36½	7.14	468	21,200	12.02	522	23,650	16.75	572	26,000	22.10	620	28,050	27.95
8	42	9.33	409	27,650	15.70	456	30,900	21.90	500	33,950	28.85	542	36,600	36.50
9	47	11.81	364	35,050	19.90	405	39,100	27.70	445	42,950	36.55	482	46,350	46.20
10	52	14.58	327	43,250	24.55	365	48,300	34.20	400	53,000	45.15	433	57,200	57.00
11	58	17.64	297	52,300	29.70	332	58,450	41.45	364	64,100	54.60	394	69,300	69.00
12	63	21.00	272	62,300	35.50	304	69,550	49.25	334	76,400	65.00	361	82,500	82.15
13	68	24.65	252	73,050	41.50	280	81,600	57.80	308	89,550	76.30	334	96,750	96.45
14	73	28.68	234	84,900	48.15	261	94,600	67.05	286	103,900	88.70	310	112,050	111.90
15	78	32.80	218	97,250	55.25	243	108,700	77.00	267	119,200	101.50	289	128,800	128.20
16	84	37.32	204	110,750	62.85	228	123,600	87.50	250	135,800	115.50	271	146,400	146.00
17	89	42.14	192	125,000	71.00	214	139,500	99.00	235	153,100	130.30	255	165,300	164.80
18	94	47.24	182	140,000	79.50	203	156,500	110.80	222	171,800	146.00	241	185,300	184.60
19	99	52.63	172	156,000	88.55	192	174,200	123.40	211	191,200	162.80	228	206,200	206.00
20	105	58.32	164	173,000	98.25	183	193,000	136.80	200	212,000	180.30	217	229,000	228.00

Total Pressure is 127.4 % of the Rated Static Pressure.

No. 3 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	1310	0.063	387	0.09	483	0.15								
1100	1440	0.076	384	0.11	477	0.16								
1200	1570	0.090	**387**	**0.12**	477	0.17	557	.23						
1300	1710	0.106	393	0.14	470	0.18	550	.25	623	.32				
1400	1840	0.122	400	0.16	473	0.20	547	.26	617	.33	687	.42		
1500	1970	0.141	410	0.18	**477**	**0.23**	543	.28	613	.35	680	.43	743	.52
1600	2100	0.160	420	0.21	480	0.25	**547**	**.31**	610	.37	673	.45	733	.54
1700	2230	0.180	430	0.24	490	0.28	**550**	**.34**	607	.40	670	.48	727	.56
1800	2360	0.202	443	0.28	500	0.32	553	.37	**610**	**.43**	667	.51	723	.59
1900	2490	0.225	457	0.31	510	0.35	560	.41	**613**	**.47**	667	.54	720	.62
2000	2630	0.250	470	0.35	520	0.40	570	.45	617	.52	667	**.58**	720	.66
2100	2760	0.275	483	0.39	530	0.45	580	.50	623	.56	670	.63	720	.71
2200	2890	0.302	497	0.44	543	0.50	590	.55	633	.61	677	.68	**723**	**.76**
2300	3020	0.330	513	0.49	557	0.55	600	.61	643	.67	683	.73	**727**	**.81**
2400	3150	0.360	527	0.55	570	0.61	610	.67	650	.73	690	.80	733	.87
2500	3280	0.390	543	0.60	583	0.67	623	.74	660	.80	700	.86	740	.94
2600	3410	0.422	560	0.67	597	0.74	633	.81	673	.88	710	.94	747	1.02
2800	3670	0.489	590	0.81	623	0.89	660	.96	693	1.04	730	1.10	767	1.17
3000	3940	0.560	623	0.99	657	1.04	687	1.14	720	1.22	753	1.29	780	1.36
3200	4190	0.638					717	1.33	747	1.42	780	1.50	810	1.58
3400	4460	0.721									807	1.75	833	1.84

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	1710	0.106	820	.58										
1400	1840	0.122	810	.59	920	.80	1027	1.00						
1500	1970	0.141	800	.62	913	.81	1017	1.04	1110	1.25				
1600	2100	0.160	793	.64	903	.84	1007	1.06	1100	1.29	1190	1.53		
1700	2230	0.180	783	.66	893	.86	997	1.09	1087	1.32	1177	1.58	1343	2.13
1800	2360	0.202	777	.68	883	.89	983	1.12	1077	1.35	1167	1.61	1330	2.16
1900	2490	0.225	773	.71	877	.92	977	1.14	1067	1.39	1157	1.65	1317	2.20
2000	2630	0.250	770	.75	873	.95	970	1.17	1057	1.42	1143	1.68	1303	2.24
2100	2760	0.275	770	.79	867	.99	960	1.22	1050	1.46	1133	1.73	1297	2.29
2200	2890	0.302	767	.84	863	1.03	953	1.25	1040	1.50	1127	1.76	1287	2.33
2300	3020	0.330	770	.89	860	1.08	950	1.30	1033	1.54	1120	1.81	1270	2.38
2400	3150	0.360	**773**	**.95**	860	1.13	947	1.35	1027	1.59	1107	1.85	1263	2.43
2500	3280	0.390	**777**	**1.03**	860	1.20	943	1.41	1023	1.64	1103	1.91	1253	2.49
2600	3410	0.422	783	1.09	**863**	**1.26**	940	1.47	1020	1.70	1097	1.96	1247	2.54
2800	3670	0.489	800	1.25	870	1.43	**943**	**1.63**	1013	1.84	1090	2.10	1233	2.67
3000	3940	0.560	820	1.44	883	1.61	950	1.81	**1020**	**2.02**	1087	2.25	1227	2.82
3200	4190	0.638	837	1.65	900	1.83	960	2.02	1023	2.23	**1090**	**2.47**	1217	3.00
3400	4460	0.721	863	1.90	920	2.06	980	2.26	1033	2.47	1093	2.69	1213	3.21
3600	4730	0.810	883	2.18	943	2.34	997	2.53	1050	2.76	1107	2.96	**1220**	**3.48**
3800	4990	0.900					1017	2.84	1067	3.04	1117	3.28	**1227**	**3.76**
4000	5250	1.000							1087	3.39	1133	3.60	1233	4.10

No. 3½ Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	RP..M.	H. P.
1000	1790	0.063	332	.13	414	.20								
1100	1970	0.076	329	.14	409	.21								
1200	2140	0.090	**332**	**.16**	409	.23	477	.32						
1300	2320	0.106	337	.18	403	.25	472	.33	534	.43				
1400	2500	0.122	343	.21	406	.28	469	.36	529	.45	589	.57		
1500	2680	0.141	352	.24	**409**	**.31**	466	.38	526	.48	583	.59	637	.71
1600	2860	0.160	360	.28	412	.34	**469**	**.42**	523	.51	577	.62	629	.73
1700	3040	0.180	369	.32	420	.39	**472**	**.46**	520	.55	574	.65	623	.77
1800	3210	0.202	380	.37	429	.43	474	.51	**523**	**.59**	572	.69	620	.80
1900	3390	0.225	392	.42	437	.48	480	.56	**526**	**.64**	572	.74	617	.85
2000	3570	0.250	403	.48	446	.54	489	.62	529	.70	**572**	**.79**	617	.90
2100	3750	0.275	414	.53	454	.61	497	.68	534	.76	574	.86	617	.96
2200	3930	0.302	426	.59	466	.68	506	.75	543	.83	580	.92	**620**	**1.03**
2300	4110	0.330	440	.67	477	.75	514	.83	552	.91	586	1.00	**623**	**1.10**
2400	4290	0.360	452	.74	489	.83	523	.91	557	.99	592	1.09	629	1.18
2500	4470	0.390	466	.82	500	.91	534	1.01	566	1.08	600	1.17	634	1.27
2600	4640	0.422	480	.91	512	1.01	543	1.10	577	1.19	609	1.27	640	1.39
2800	5000	0.489	506	1.10	534	1.21	566	1.31	594	1.41	626	1.50	657	1.59
3000	5360	0.560	534	1.35	563	1.42	589	1.56	617	1.65	646	1.75	669	1.85
3200	5720	0.638					614	1.81	640	1.94	669	2.05	694	2.16
3400	6070	0.721									692	2.38	714	2.50

Outlet Velocty Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M	H. P	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	2320	0.106	703	.78										
1400	2500	0.122	694	.81	789	1.08	880	1.36						
1500	2680	0.141	686	.84	783	1.10	872	1.41	952	1.70				
1600	2860	0.160	680	.86	774	1.15	863	1.45	943	1.75	1020	2.08		
1700	3040	0.180	672	.89	766	1.17	854	1.48	932	1.79	1009	2.14	1151	2.89
1800	3210	0.202	666	.93	757	1.21	843	1.52	923	1.84	1000	2.19	1140	2.94
1900	3390	0.225	663	.97	752	1.25	837	1.56	914	1.89	992	2.24	1129	2.99
2000	3570	0.250	660	1.02	749	1.30	831	1.59	906	1.94	980	2.29	1117	3.05
2100	3750	0.275	660	1.08	743	1.35	823	1.65	900	1.99	972	2.35	1111	3.11
2200	3930	0.302	657	1.14	740	1.40	817	1.70	892	2.03	966	2.40	1103	3.17
2300	4110	0.330	660	1.22	737	1.47	814	1.77	886	2.10	960	2.46	1089	3.23
2400	4290	0.360	**663**	**1.30**	737	1.53	812	1.84	880	2.17	949	2.52	1083	3.31
2500	4470	0.390	**666**	**1.40**	737	1.63	809	1.91	877	2.23	946	2.60	1074	3.38
2600	4640	0.422	672	1.48	**740**	**1.72**	806	2.00	874	2.32	940	2.67	1069	3.46
2800	5000	0.489	686	1.70	746	1.95	**809**	**2.22**	869	2.50	934	2.86	1057	3.63
3000	5360	0.560	703	1.96	757	2.19	814	2.46	**874**	**2.74**	932	3.06	1052	3.84
3200	5720	0.638	717	2.24	772	2.49	823	2.75	877	3.04	**934**	**3.36**	1043	4.08
3400	6070	0.721	740	2.59	789	2.81	840	3.08	886	3.36	937	3.66	1040	4.36
3600	6430	0.810	757	2.97	809	3.19	854	3.44	900	3.75	949	4.03	**1046**	**4.73**
3800	6790	0.900					872	3.86	914	4.14	957	4.46	**1052**	**5.12**
4000	7140	1.000							932	4.61	972	4.90	1057	5.59

No. 4 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70°F and 29.92 Barom.

Outlet Velocity Ft. Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	2330	0.063	290	.17	363	.26								
1100	2570	0.076	288	.19	358	.28								
1200	2800	0.090	**290**	**.21**	358	.30	418	.41						
1300	3030	0.106	295	.24	353	.33	413	.44	468	.56				
1400	3270	0.122	300	.28	355	.36	410	.47	463	.59	515	.74		
1500	3500	0.141	308	.32	**358**	**.40**	408	.50	460	.62	510	.77	558	.92
1600	3730	0.160	315	.37	360	.45	**410**	**.55**	458	.66	505	.80	550	.96
1700	3970	0.180	323	.42	368	.50	**413**	**.60**	455	.71	503	.85	545	1.00
1800	4220	0.202	333	.49	375	.56	415	.66	**458**	**.77**	500	.90	543	1.05
1900	4430	0.225	343	.55	383	.63	420	.73	**460**	**.84**	500	.96	540	1.11
2000	4670	0.250	353	.62	390	.71	428	.81	463	.92	**500**	**1.04**	540	1.17
2100	4900	0.275	363	.70	398	.80	435	.89	468	1.00	503	1.12	540	1.26
2200	5130	0.302	373	.78	408	.88	443	.98	475	1.08	508	1.21	**543**	**1.35**
2300	5370	0.330	385	.87	418	.98	450	1.08	483	1.19	513	1.31	**545**	**1.44**
2400	5600	0.360	395	.97	428	1.09	458	1.19	488	1.30	518	1.42	550	1.55
2500	5830	0.390	408	1.07	438	1.19	468	1.32	495	1.41	525	1.53	555	1.67
2600	6070	0.422	420	1.19	448	1.32	475	1.43	505	1.56	533	1.67	560	1.81
2800	6530	0.489	443	1.44	468	1.58	495	1.71	520	1.84	548	1.95	575	2.08
3000	7000	0.560	468	1.76	493	1.86	515	2.03	540	2.16	565	2.29	585	2.42
3200	7460	0.638					538	2.37	560	2.53	585	2.67	608	2.82
3400	7930	0.721									605	3.11	625	3.27

Outlet Velocity Ft. Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	3030	0.106	615	1.03										
1400	3270	0.122	608	1.06	690	1.41	770	1.78						
1500	3500	0.141	600	1.09	685	1.44	763	1.84	833	2.23				
1600	3730	0.160	595	1.13	678	1.50	755	1.89	825	2.29	893	2.72		
1700	3970	0.180	588	1.17	670	1.53	748	1.94	815	2.34	883	2.80	1008	3.78
1800	4220	0.202	583	1.22	663	1.58	738	1.99	808	2.40	875	2.87	998	3.84
1900	4430	0.225	580	1.27	658	1.63	733	2.03	800	2.47	868	2.93	988	3.91
2000	4670	0.250	578	1.33	655	1.70	728	2.08	793	2.53	858	2.99	978	3.99
2100	4900	0.275	578	1.40	650	1.76	720	2.16	788	2.59	850	3.07	973	4.07
2200	5130	0.302	575	1.49	648	1.83	715	2.23	780	2.66	845	3.14	965	4.15
2300	5370	0.330	578	1.59	645	1.92	713	2.31	775	2.74	840	3.22	953	4.23
2400	5600	0.360	**580**	**1.70**	645	2.00	710	2.40	770	2.83	830	3.30	948	4.32
2500	5830	0.390	**583**	**1.83**	645	2.13	708	2.50	768	2.91	828	3.39	940	4 42
2600	6070	0.422	588	1.94	**648**	**2.24**	705	2.61	765	3.03	823	3.49	935	4.51
2800	6530	0.489	600	2.23	653	2.55	**708**	**2.90**	760	3.27	818	3.73	925	4.74
3000	7000	0.560	615	2.56	663	2.87	713	3.22	**765**	**3.59**	815	4.00	920	5.01
3200	7460	0.638	628	2.93	675	3.25	720	3.59	768	3.97	**818**	**4.39**	913	5.33
3400	7930	0.721	648	3.38	690	3.67	735	4.02	775	4.39	820	4.79	910	5.70
3600	8400	0.810	663	3.87	708	4.16	748	4.50	788	4.90	830	5.27	**915**	**6.18**
3800	8860	0.900					763	5.04	800	5.41	838	5.83	**920**	**6.69**
4000	9330	1.000							815	6.02	850	6.40	925	7.30

No. 4½ Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70°F and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	2950	0.063	258	0.21	322	0.33								
1100	3250	0.076	256	0.23	318	0.35								
1200	3540	0.090	**258**	**0.27**	318	0.38	371	0.52						
1300	3840	0.106	262	0.30	313	0.41	367	0.55	416	0.71				
1400	4130	0.122	267	0.35	316	0.46	365	0.59	411	0.75	458	0.93		
1500	4430	0.141	273	0.40	**318**	**0.51**	362	0.63	409	0.79	453	0.97	496	1.17
1600	4720	0.160	280	0.46	320	0.57	**365**	**0.69**	407	0.84	449	1.02	489	1.21
1700	5020	0.180	287	0.53	327	0.64	**367**	**0.76**	405	0.90	447	1.07	485	1.27
1800	5310	0.202	296	0.61	333	0.71	369	0.84	**407**	**0.97**	445	1.14	482	1.33
1900	5610	0.225	305	0.69	340	0.80	373	0.92	**409**	**1.06**	445	1.22	480	1.40
2000	5900	0.250	313	0.79	347	0.89	380	1.02	411	1.16	**445**	**1.31**	480	1.48
2100	6200	0.275	322	0.88	353	1.01	387	1.13	416	1.26	447	1.42	480	1.59
2200	6500	0.302	331	0.98	362	1.12	393	1.24	422	1.37	451	1.53	**482**	**1.71**
2300	6790	0.330	342	1.10	371	1.24	400	1.37	429	1.50	456	1.65	**485**	**1.82**
2400	7090	0.360	351	1.23	380	1.38	407	1.51	433	1.64	460	1.80	489	1.96
2500	7380	0.390	362	1.35	389	1.50	416	1.67	440	1.79	467	1.94	493	2.11
2600	7680	0.422	373	1.51	398	1.67	422	1.81	449	1.97	473	2.11	498	2.29
2800	8270	0.489	393	1.82	416	2.00	440	2.17	462	2.33	487	2.47	511	2.63
3000	8860	0.560	416	2.23	438	2.35	458	2.57	480	2.73	502	2.90	520	3.06
3200	9450	0.638					478	3.00	498	3.20	520	3.38	540	3.57
3400	10040	0.721									538	3.93	556	4.13

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	3840	0.106	547	1.30										
1400	4130	0.122	540	1.34	613	1.79	685	2.25						
1500	4430	0.141	533	1.38	609	1.82	678	2.33	740	2.82				
1600	4720	0.160	529	1.43	602	1.89	671	2.39	733	2.90	793	3.44		
1700	5020	0.180	522	1.48	596	1.93	665	2.45	725	2.96	785	3.54	896	4.78
1800	5310	0.202	518	1.54	589	2.00	656	2.51	718	3.04	778	3.63	887	4.86
1900	5610	0.225	516	1.60	585	2.07	651	2.57	711	3.12	771	3.71	878	4.94
2000	5900	0.250	513	1.69	582	2.15	647	2.63	704	3.20	762	3.79	869	5.04
2100	6200	0.275	513	1.78	578	2.23	640	2.74	700	3.28	756	3.89	865	5.14
2200	6500	0.302	511	1.89	576	2.31	636	2.82	696	3.36	751	3.97	858	5.25
2300	6790	0.330	513	2.01	573	2.43	633	2.92	689	3.46	747	4.07	847	5.35
2400	7090	0.360	**516**	**2.15**	573	2.53	631	3.04	685	3.59	738	4.17	842	5.47
2500	7380	0.390	**518**	**2.31**	573	2.69	629	3.16	682	3.69	736	4.29	836	5.59
2600	7680	0.422	522	2.45	**576**	**2.84**	627	3.30	680	3.83	731	4.42	831	5.71
2800	8270	0.489	533	2.82	580	3.22	**629**	**3.67**	676	4.13	727	4.72	822	5.99
3000	8860	0.560	547	3.24	589	3.63	633	4.07	**680**	**4.54**	725	5.06	818	6.34
3200	9450	0.638	558	3.71	600	4.11	640	4.54	682	5.02	**727**	**5.55**	811	6.74
3400	10040	0.721	576	4.27	613	4.64	653	5.08	689	5.55	729	6.06	809	7.21
3600	10630	0.810	589	4.90	629	5.27	665	5.69	700	6.20	738	6.66	**813**	**7.82**
3800	11220	0.900					678	6.38	711	6.85	745	7.37	**818**	**8.46**
4000	11810	1.000							725	7.61	756	8.10	822	9.23

No. 5 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	3640	0.063	232	.26	290	.41								
1100	4010	0.076	230	.29	286	.44								
1200	4370	0.090	**232**	**.33**	286	.47	334	.65						
1300	4740	0.106	236	.38	282	.51	330	.68	374	.88				
1400	5100	0.122	240	.43	284	.56	328	.73	370	.92	412	1.15		
1500	5470	0.141	246	.50	**286**	**.63**	326	.78	368	.98	408	1.20	446	1.44
1600	5830	0.160	252	.57	288	.70	**328**	**.86**	366	1.04	404	1.26	440	1.49
1700	6190	0.180	258	.66	294	.79	**330**	**.94**	364	1.11	402	1.33	436	1.57
1800	6560	0.202	266	.76	300	.88	332	1.03	**366**	**1.20**	400	1.40	434	1.64
1900	6930	0.225	274	.86	306	.99	336	1.14	**368**	**1.31**	400	1.50	432	1.73
2000	7290	0.250	282	.97	312	1.11	342	1.26	370	1.43	**400**	**1.62**	432	1.83
2100	7660	0.275	290	1.09	318	1.24	348	1.39	374	1.56	402	1.75	432	1.96
2200	8010	0.302	298	1.21	326	1.38	354	1.53	380	1.69	406	1.89	**434**	**2.11**
2300	8380	0.330	308	1.36	334	1.55	360	1.69	386	1.85	410	2.04	**436**	**2.25**
2400	8750	0.360	316	1.51	342	1.70	366	1.86	390	2.03	414	2.22	440	2.41
2500	9100	0.390	326	1.67	350	1.86	374	2.06	396	2.21	420	2.40	444	2.60
2600	9480	0.422	336	1.86	358	2.06	380	2.24	404	2.43	426	2.60	448	2.83
2800	10200	0.489	354	2.25	374	2.46	396	2.68	416	2.88	438	3.05	460	3.25
3000	10940	0.560	374	2.75	394	2.90	412	3.18	432	3.38	452	3.58	468	3.78
3200	11660	0.638					430	3.70	448	3.95	468	4.18	486	4.40
3400	12390	0.721									484	4.85	500	5.10

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	4740	0.106	492	1.60										
1400	5100	0.122	486	1.65	552	2.21	616	2.78						
1500	5470	0.141	480	1.71	548	2.25	610	2.88	666	3.48				
1600	5830	0.160	476	1.76	542	2.34	604	2.95	660	3.58	714	4.25		
1700	6190	0.180	470	1.82	536	2.39	598	3.03	652	3.65	706	4.38	806	5.90
1800	6560	0.202	466	1.90	530	2.47	590	3.10	646	3.75	700	4.48	798	6.00
1900	6930	0.225	464	1.98	526	2.55	586	3.18	640	3.85	694	4.58	790	6.10
2000	7290	0.250	462	2.08	524	2.65	582	3.25	634	3.95	686	4.68	782	6.23
2100	7660	0.275	462	2.19	520	2.75	576	3.38	630	4.05	680	4.80	778	6.35
2200	8018	0.302	460	2.33	518	2.85	572	3.48	624	4.15	676	4.90	772	6.48
2300	8380	0.330	462	2.48	516	3.00	570	3.60	620	4.28	672	5.03	762	6.60
2400	8750	0.360	**464**	**2.65**	516	3.13	568	3.75	616	4.44	664	5.15	758	6.75
2500	9100	0.390	**466**	**2.85**	516	3.33	566	3.90	614	4.55	662	5.30	752	6.90
2600	9480	0.422	470	3.03	**518**	**3.50**	564	4.08	612	4.73	658	5.45	748	7.05
2800	10200	0.489	480	3.48	522	3.98	**566**	**4.53**	608	5.10	654	5.83	740	7.40
3000	10940	0.560	492	4.00	530	4.48	570	5.03	**612**	**5.60**	652	6.25	736	7.83
3200	11660	0.638	502	4.57	540	5.08	576	5.60	614	6.20	654	6.85	730	8.32
3400	12390	0.721	518	5.27	552	5.73	588	6.28	620	6.85	656	7.48	728	8.90
3600	13120	0.810	530	6.05	566	6.50	598	7.03	630	7.65	664	8.22	**732**	**9.65**
3800	13850	0.900					610	7.88	640	8.46	670	9.10	**736**	**10.5**
4000	14580	1.000							652	9.40	680	10.00	740	11.4

No. 5½ Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	4410	0.063	211	.32	264	.49								
1100	4850	0.076	209	.35	260	.53								
1200	5290	0.090	**211**	**.40**	260	.57	304	.78						
1300	5730	0.106	215	.45	257	.62	300	.83	340	1.06				
1400	6170	0.122	218	.52	258	.68	298	88	336	1.12	375	1.40		
1500	6620	0.141	224	.60	**260**	**.76**	296	.95	335	1.18	371	1.45	406	1.75
1600	7060	0.160	229	.69	262	.85	**298**	**1.04**	333	1.26	367	1.52	400	1.81
1700	7500	0.180	235	.80	267	.95	**300**	**1.13**	331	1.35	366	1.60	397	1.89
1800	7940	0.202	242	.92	273	1.06	302	1.25	**333**	**1.46**	364	1.70	395	1.98
1900	8380	0.225	249	1.04	278	1.19	306	1.38	**335**	**1.59**	364	1.82	393	2.09
2000	8820	0.250	256	1.17	284	1.34	311	1.53	336	1.73	**364**	**1.96**	393	2.21
2100	9260	0.275	264	1.32	289	1.50	316	1.68	340	1.88	366	2.12	393	2.37
2200	9700	0.302	271	1.47	296	1.67	322	1.85	346	2.05	369	2.28	**395**	**2.55**
2300	10140	0.330	280	1.65	304	1.86	327	2.05	351	2.24	373	2.47	**397**	**2.72**
2400	10590	0.360	287	1.83	311	2.05	333	2.25	355	2.45	377	2.68	400	2.92
2500	11030	0.390	297	2.02	318	2.25	340	2.49	360	2.67	382	2.90	404	3.15
2600	11470	0.422	306	2.25	326	2.49	346	2.71	367	2.94	387	3.15	407	3.42
2800	12350	0.489	322	2.72	340	2.98	360	3.24	378	3.48	398	3.69	418	3.93
3000	13230	0.560	340	3.33	358	3.51	375	3.84	393	4.08	411	4.33	426	4.57
3200	14110	0.638					391	4.48	407	4.78	426	5.05	442	5.33
3400	15000	0.721									440	5.87	455	6.17

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	5730	0.106	447	1.94										
1400	6170	0 122	442	1.99	502	2.67	560	3.36						
1500	6620	0.141	437	2.07	498	2.72	555	3.48	606	4.21				
1600	7060	0.160	433	2.13	493	2.83	549	3.57	600	4.33	649	5.14		
1700	7500	0.180	427	2.20	487	2.89	544	3.66	593	4.42	642	5.29	733	7.14
1800	7940	0.202	424	2.30	482	2.99	537	3.75	587	4.54	636	5.42	726	7.26
1900	8380	0.225	422	2.39	478	3.09	533	3.84	582	4.66	631	5.54	718	7.38
2000	8820	0.250	420	2.52	476	3.21	529	3.93	576	4.78	624	5.66	711	7.53
2100	9260	0.275	420	2.65	473	3.33	524	4.08	573	4.90	618	5.81	707	7.68
2200	9700	0.302	418	2.82	471	3.45	520	4.21	567	5.02	615	5.93	702	7.84
2300	10140	0.330	420	3.00	469	3.63	518	4.36	564	5.17	611	6.08	693	7.99
2400	10590	0.360	**422**	**3.21**	469	3.78	517	4.54	560	5.35	604	6.23	689	8.17
2500	11030	0.390	**424**	**3.45**	469	4.02	515	4.72	558	5.51	602	6.41	684	8.35
2600	11470	0.422	427	3.66	**471**	**4.24**	513	4.93	557	5.72	598	6.59	680	8.53
2800	12350	0.489	437	4.21	475	4.81	**515**	**5.48**	553	6.17	595	7.05	673	8.95
3000	13230	0.560	447	4.84	482	5.42	518	6.08	**557**	**6.78**	593	7.56	669	9.47
3200	14110	0.638	456	5.54	491	6.14	524	6.78	558	7.50	**595**	**8.29**	664	10.1
3400	15000	0.721	471	6.38	502	6.93	535	7.59	564	8.29	596	9.04	662	10.8
3600	15880	0.810	482	7.32	515	7.87	544	8.50	573	9.26	604	9.95	**666**	**11.7**
3800	16760	0.900					555	9.53	582	10.2	609	11.0	**669**	**12.7**
4000	17640	1.000							593	11.4	618	12.1	673	13.8

No. 6 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70°F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	5250	0.063	193	.37	242	.59								
1100	5770	0.076	192	.42	238	.63								
1200	6300	0.090	**193**	.48	238	.67	278	.93						
1300	6820	0.106	197	.54	235	.73	275	.98	312	1.27				
1400	7350	0.122	200	.62	237	.81	274	1.05	308	1.33	344	1.66		
1500	7870	0.141	205	.72	**238**	**.91**	272	1.13	307	1.41	340	1.72	372	2.08
1600	8400	0.160	210	.82	240	1.01	**274**	**1.23**	305	1.49	337	1.81	367	2.15
1700	8920	0.180	215	.95	245	1.13	**275**	**1.35**	304	1.60	335	1.91	363	2.25
1800	9450	0.202	222	1.09	250	1.26	277	1.49	**305**	**1.73**	334	2.02	362	2.36
1900	9970	0.225	228	1.24	255	1.42	280	1.64	**307**	**1.88**	334	2.16	360	2.49
2000	10500	0.250	235	1.40	260	1.59	285	1.82	309	2.06	**334**	**2.33**	360	2.63
2100	11030	0.275	242	1.57	265	1.79	290	2.00	312	2.24	335	2.52	360	2.82
2200	11550	0.302	248	1.75	272	1.98	295	2.20	317	2.43	339	2.72	**362**	**3.04**
2300	12070	0.330	257	1.96	279	2.21	300	2.43	322	2.66	342	2.94	**363**	**3.23**
2400	12600	0.360	263	2.18	285	2.45	305	2.68	325	2.92	345	3.19	367	3.48
2500	13120	0.390	272	2.41	291	2.67	312	2.96	330	3.18	350	3.45	370	3.74
2600	13650	0.422	280	2.68	299	2.96	317	3.22	337	3.50	355	3.74	374	4.07
2800	14700	0.489	295	3.24	312	3.55	330	3.85	347	4.14	365	4.39	384	4.68
3000	15750	0.560	312	3.96	329	4.48	344	4.57	360	4.86	377	5.15	390	5.44
3200	16790	0.638					359	5.33	373	5.69	390	6.01	405	6.34
3400	17850	0.721									403	6.98	417	7.35

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	6820	0.106	410	2.31										
1400	7350	0.122	405	2.37	460	3.18	513	4.00						
1500	7870	0.141	400	2.46	457	3.24	509	4.14	555	5.00				
1600	8400	0.160	397	2.54	452	3.36	504	4.25	550	5.15	595	6.12		
1700	8920	0.180	392	2.62	447	3.44	499	4.36	544	5.26	589	6.30	672	8.50
1800	9450	0.202	389	2.73	442	3.56	492	4.47	539	5.40	584	6.45	665	8.64
1900	9970	0.225	387	2.85	439	3.67	489	4.57	534	5.55	579	6.59	659	8.78
2000	10500	0.250	385	3.00	437	3.82	485	4.68	529	5.69	572	6.73	652	8.96
2100	11030	0.275	385	3.16	434	3.96	480	4.86	525	5.83	567	6.91	649	9.14
2200	11550	0.302	384	3.35	432	4.11	477	5.00	520	5.98	564	7.06	644	9.32
2300	12070	0.330	385	3.57	430	4.32	475	5.18	517	6.16	560	7.24	635	9.50
2400	12600	0.360	**387**	**3.82**	430	4.50	474	5.40	514	6.37	554	7.42	632	9.72
2500	13120	0.390	**389**	**4.10**	430	4.79	472	5.62	512	6.55	552	7.63	627	9.94
2600	13650	0.422	392	4.36	**432**	**5.04**	470	5.87	510	6.81	549	7.85	624	10.2
2800	14700	0.489	400	5.00	435	5.73	**472**	**6.52**	507	7.34	545	8.39	617	10.7
3000	15750	0.560	410	5.76	442	6.45	475	7.24	**510**	**8.06**	544	9.00	614	11.3
3200	16790	0.638	419	6.59	450	7.31	480	8.06	512	8.93	**545**	**9.86**	609	12.0
3400	17850	0.721	432	7.60	460	8.24	490	9.04	517	9.86	547	10.8	607	12.8
3600	18900	0.810	442	8.71	472	9.36	499	10.1	525	11.0	554	11.9	**610**	**13.9**
3800	19950	0.900					509	11.3	534	12.2	559	13.1	**614**	**15.1**
4000	21000	1.000							544	13.5	567	14.4	617	16.4

No. 7 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	7140	0.063	166	0.51	207	0.80								
1100	7860	0.076	164	0.57	204	0.85								
1200	8570	0.090	**166**	**0.65**	204	0.92	239	1.26						
1300	9290	0.106	169	0.74	202	1.00	236	1.34	267	1.73				
1400	10000	0.122	172	0.85	203	1.10	234	1.43	264	1.81	294	2.26		
1500	10720	0.141	176	0.98	**204**	**1.24**	233	1.53	263	1.91	292	2.34	319	2.83
1600	11430	0.160	180	1.12	206	1.37	**234**	**1.68**	262	2.03	289	2.46	314	2.93
1700	12150	0.180	184	1.29	210	1.54	**236**	**1.83**	260	2.18	287	2.60	312	3.07
1800	12860	0.202	190	1.49	214	1.72	237	2.02	**262**	**2.36**	286	2.75	310	3.21
1900	13570	0.225	196	1.68	219	1.93	240	2.23	**263**	**2.56**	286	2.95	309	3.39
2000	14290	0.250	202	1.90	223	2.17	244	2.47	264	2.80	**286**	**3.18**	309	3.58
2100	15000	0.275	207	2.13	227	2.44	249	2.73	267	3.05	287	3.43	309	3.84
2200	15720	0.302	213	2.38	233	2.70	253	3.00	272	3.31	290	3.70	**310**	**4.13**
2300	16430	0.330	220	2.67	239	3.01	257	3.31	276	3.63	293	4.00	**312**	**4.40**
2400	17150	0.360	226	2.97	244	3.33	262	3.64	279	3.97	296	4.34	314	4.73
2500	17860	0.390	233	3.27	250	3.64	267	4.03	283	4.33	300	4.70	317	5.10
2600	18580	0.422	240	3.64	256	4.03	272	4.39	289	4.77	304	5.10	320	5.54
2800	20000	0.489	253	4.41	267	4.83	283	5.24	297	5.64	313	5.98	329	6.37
3000	21430	0.560	267	5.39	282	5.68	294	6.22	309	6.62	323	7.01	334	7.40
3200	22860	0.638					307	7.25	320	7.74	334	8.18	347	8.62
3400	24290	0.721									346	9.51	357	10.0

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	9290	0.106	352	3.14										
1400	10000	0.122	347	3.23	394	4.33	440	5.44						
1500	10720	0.141	343	3.35	392	4.41	436	5.64	476	6.81				
1600	11430	0.160	340	3.46	387	4.58	432	5.78	472	7.01	510	8.33		
1700	12150	0.180	336	3.57	383	4.68	427	5.93	466	7.15	504	8.58	576	11.6
1800	12860	0.202	333	3.72	379	4.85	422	6.08	462	7.35	500	8.77	570	11.8
1900	13570	0.225	332	3.88	376	5.00	419	6.22	457	7.55	496	8.97	564	12.0
2000	14290	0.250	330	4.08	374	5.19	416	6.37	453	7.74	490	9.16	559	12.2
2100	15000	0.275	330	4.30	372	5.39	412	6.62	450	7.94	486	9.41	556	12.5
2200	15720	0.302	329	4.56	370	5.59	409	6.81	446	8.13	483	9.60	552	12.7
2300	16430	0.330	330	4.86	369	5.88	407	7.06	443	8.38	480	9.85	544	12.9
2400	17150	0.360	**332**	**5.19**	369	6.13	406	7.35	440	8.67	474	10.1	542	13.2
2500	17860	0.390	**333**	**5.59**	369	6.52	404	7.64	439	8.92	473	10.4	537	13.5
2600	18580	0.422	336	5.93	**370**	**6.86**	403	7.99	437	9.26	470	10.7	534	13.8
2800	20000	0.489	343	6.81	373	7.79	**404**	**8.87**	434	10.0	467	11.4	529	14.5
3000	21430	0.560	352	7.84	379	8.77	407	9.85	**437**	**11.0**	466	12.3	526	15.3
3200	22860	0.638	359	8.97	386	9.95	412	11.0	439	12.2	**467**	**13.4**	522	16.3
3400	24290	0.721	370	10.3	394	11.2	420	12.3	443	13.4	469	14.7	520	17.4
3600	25720	0.810	379	11.9	404	12.7	427	13.8	450	15.0	474	16.1	**523**	**18.9**
3800	27150	0.900					436	15.4	457	16.6	479	17.8	**526**	**20.5**
4000	28580	1.000							466	18.4	486	19.6	529	22.4

No. 8 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	9330	0.063	145	0.67	181	1.04								
1100	10270	0.076	144	0.74	179	1.11								
1200	11200	0.090	**145**	**0.85**	179	1.20	209	1.65						
1300	12130	0.106	148	0.96	176	1.31	206	1.75	234	2.25				
1400	13060	0.122	150	1.11	178	1.44	205	1.87	231	2.36	258	2.95		
1500	14000	0.141	154	1.27	**179**	**1.61**	204	2.00	230	2.50	255	3.06	279	3.69
1600	14930	0.160	158	1.47	180	1.79	**205**	**2.19**	229	2.66	253	3.21	275	3.82
1700	15860	0.180	161	1.69	184	2.01	**206**	**2.39**	228	2.85	251	3.39	273	4.01
1800	16800	0.202	166	1.94	188	2.25	208	2.64	**229**	**3.08**	250	3.59	271	4.19
1900	17730	0.225	171	2.20	191	2.52	210	2.91	**230**	**3.34**	250	3.85	270	4.42
2000	18660	0.250	176	2.48	195	2.83	214	3.23	231	3.66	**250**	**4.15**	270	4.68
2100	19600	0.275	181	2.79	199	3.18	218	3.56	234	3.98	251	4.48	270	5.02
2200	20530	0.302	186	3.11	204	3.53	221	3.92	238	4.33	254	4.83	**271**	**5.40**
2300	21460	0.330	193	3.48	209	3.93	225	4.33	241	4.74	256	5.22	**273**	**5.75**
2400	22400	0.360	198	3.87	214	4.35	229	4.76	244	5.19	259	5.67	275	6.18
2500	23330	0.390	204	4.28	219	4.75	234	5.26	248	5.65	263	6.13	278	6.66
2600	24260	0.422	210	4.76	224	5.26	238	5.73	253	6.23	266	6.66	280	7.23
2800	26130	0.489	221	5.76	234	6.31	248	6.85	260	7.36	274	7.81	288	8.32
3000	28000	0.560	234	7.04	246	7.42	258	8.13	270	8.64	283	9.15	293	9.66
3200	29860	0.638					269	9.47	280	10.1	293	10.7	304	11.3
3400	31720	0.721									303	12.4	313	13.1

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	12130	0.106	308	4.10										
1400	13060	0.122	304	4.22	345	5.65	385	7.10						
1500	14000	0.141	300	4.37	343	5.76	381	7.36	416	8.90				
1600	14930	0.160	298	4.51	339	5.98	378	7.55	413	9.15	446	10.9		
1700	15860	0.180	294	4.66	335	6.11	374	7.74	408	9.34	441	11.2	504	15.1
1800	16800	0.202	291	4.86	331	6.33	369	7.94	404	9.60	438	11.5	499	15.4
1900	17730	0.225	290	5.06	329	6.53	366	8.13	400	9.86	434	11.7	494	15.6
2000	18660	0.250	289	5.33	328	6.78	364	8.32	396	10.1	429	12.0	489	15.9
2100	19600	0.275	289	5.61	325	7.04	360	8.64	394	10.4	425	12.3	486	16.3
2200	20530	0.302	288	5.96	324	7.30	358	8.90	390	10.6	423	12.6	483	16.6
2300	21460	0.330	289	6.35	323	7.68	356	9.22	388	11.0	420	12.9	476	16.9
2400	22400	0.360	**290**	**6.78**	323	8.00	355	9.60	385	11.3	415	13.2	474	17.3
2500	23330	0.390	**291**	**7.30**	323	8.51	354	9.98	384	11.7	414	13.6	470	17.7
2600	24260	0.422	294	7.74	**324**	**8.96**	353	10.4	383	12.1	411	14.0	468	18.1
2800	26130	0.489	300	8.90	326	10.2	**354**	**11.6**	380	13.1	409	14.9	463	19.0
3000	28000	0.560	308	10.2	331	11.5	356	12.9	**383**	**14.3**	408	16.0	460	20.0
3200	29860	0.638	314	11.7	338	13.0	360	14.3	384	15.9	**409**	**17.5**	456	21.3
3400	31720	0.721	324	13.5	345	14.7	368	16.1	388	17.5	410	19.1	455	22.8
3600	33590	0.810	331	15.5	354	16.6	374	18.0	394	19.6	415	21.1	**458**	**24.7**
3800	35460	0.900					381	20.2	400	21.6	419	23.3	460	**26.8**
4000	37330	1.000							408	24.1	425	25.6	463	29.2

No. 9 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	11810	0.063	129	0.84	161	1.32								
1100	12990	0.076	128	0.94	159	1.41								
1200	14170	0.090	**129**	**1.07**	159	1.52	186	2.09						
1300	15360	0.106	131	1.22	157	1.65	183	2.21	208	2.85				
1400	16530	0.122	133	1 40	158	1.82	182	2.37	206	2.99	229	3.74		
1500	17720	0.141	137	1.61	**159**	**2.04**	181	2.54	205	3.16	227	3.87	248	4.67
1600	18900	0.160	140	1.86	160	2.27	**182**	**2.77**	203	3.36	225	4.07	244	4.84
1700	20080	0.180	143	2.14	163	2.54	**183**	**3.03**	202	3.60	223	4.29	242	5.07
1800	21250	0.202	148	2.45	167	2.84	185	3.35	**203**	**3.90**	222	4.55	241	5.30
1900	22440	0.225	152	2.78	170	3.19	187	3.69	**205**	**4.23**	222	4.87	240	5.60
2000	23620	0.250	157	3.14	173	3.58	190	4.08	206	4.64	**222**	**5.25**	240	5.92
2100	24800	0.275	161	3.52	177	4.03	193	4.51	208	5.04	223	5.67	240	6.35
2200	25980	0.302	166	3.93	181	4.47	197	4.96	211	5.47	226	6.10	**241**	**6.83**
2300	27160	0.330	171	4.41	186	4.97	200	5.48	215	6.00	228	6.61	**242**	**7.27**
2400	28340	0.360	176	4.90	190	5.50	203	6.02	217	6.56	230	7.18	244	7.82
2500	29520	0.390	181	5.41	195	6.01	208	6.66	220	7.15	233	7.76	247	8.43
2600	30710	0.422	187	6.02	199	6.66	211	7.25	224	7.88	237	8.42	249	9.15
2800	33070	0.489	197	7.28	208	7.98	220	8.67	231	9.30	243	9.88	256	10.5
3000	35430	0.560	208	8.91	219	9.40	229	10.3	240	10.9	251	11.6	260	12.2
3200	37790	0.638					239	12.0	249	12.8	260	13.5	270	14.3
3400	40150	0.721									269	15.7	278	16.5

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	15360	0.106	273	5.18										
1400	16530	0.122	270	5.34	307	7.15	342	8.99						
1500	17720	0.141	267	5.53	304	7.29	339	9.31	370	11.3				
1600	18900	0.160	264	5.71	301	7.57	336	9.56	367	11.6	397	13.8		
1700	20080	0.180	261	5.90	298	7.73	332	9.80	362	11.8	392	14.2	448	19.1
1800	21250	0.202	259	6.15	294	8.01	328	10.0	359	12.2	389	14.5	443	19.4
1900	22440	0.225	258	6.41	292	8.26	326	10.3	356	12.5	386	14.8	439	19.8
2000	23620	0.250	257	6.74	291	8.59	323	10.5	352	12.8	381	15.2	435	20.2
2100	24800	0.275	257	7.10	289	8.91	320	10.9	350	13.1	378	15.6	432	20.6
2200	25980	0.302	256	7.54	288	9.23	318	11.3	347	13.4	376	15.9	429	21.0
2300	27160	0.330	257	8.04	287	9.72	317	11.7	344	13.7	373	16.3	423	21.4
2400	28340	0.360	**258**	**8.59**	287	10.1	316	12.2	342	14.3	369	16.7	421	21.9
2500	29520	0.390	**259**	**9.23**	287	10.8	314	12.6	341	14.8	368	17.2	418	22.4
2600	30710	0.422	261	9.80	**288**	**11.3**	313	13.2	340	15.3	366	17.7	416	22.8
2800	33070	0.489	267	11.3	290	12.9	**314**	**14.7**	338	16.5	363	18.9	411	24.0
3000	35430	0.560	273	13.0	294	14.5	317	16.3	**340**	**18.2**	362	20.3	409	25.4
3200	37790	0.638	279	14.8	300	16.4	320	18.1	341	20.1	**363**	**22.2**	406	27.0
3400	40150	0.721	288	17.1	307	18.6	327	20.3	344	22.2	364	24.2	405	28.8
3600	42510	0.810	294	19.6	314	21.1	332	22.8	350	24.8	369	26.7	**407**	**31.3**
3800	44880	0.900					339	25.5	356	27.4	372	29.5	**409**	**33.9**
4000	47240	1.000							362	30.5	378	32.4	411	36.9

No. 10 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	14580	0.063	116	1.04	145	1.63								
1100	16040	0.076	115	1.16	143	1.74								
1200	17500	0.090	**116**	**1.32**	143	1.87	167	2.58						
1300	18960	0.106	118	1.50	141	2.04	165	2.73	187	3.52				
1400	20410	0.122	120	1.73	142	2.25	164	2.92	185	3.69	206	4.61		
1500	21870	0.141	123	1.99	**143**	**2.52**	163	3.13	184	3.90	204	4.78	223	5.77
1600	23330	0.160	126	2.29	144	2.80	**164**	**3.42**	183	4.15	202	5.02	220	5.97
1700	24790	0.180	129	2.64	147	3.14	**165**	**3.74**	182	4.45	201	5.30	218	6.26
1800	26240	0.202	133	3.03	150	3.51	166	4.13	**183**	**4.81**	200	5.61	217	6.55
1900	27700	0.225	137	3.43	153	3.94	168	4.55	**184**	**5.22**	200	6.01	216	6.91
2000	29160	0.250	141	3.88	156	4.42	171	5.04	185	5.72	**200**	**6.48**	216	7.31
2100	30620	0.275	145	4.35	159	4.97	174	5.56	187	6.22	201	7.00	216	7.84
2200	32080	0.302	149	4.85	163	5.51	177	6.12	190	6.76	203	7.54	**217**	**8.43**
2300	33540	0.330	154	5.44	167	6.14	180	6.76	193	**7.40**	205	8.16	**218**	**8.98**
2400	34990	0.360	158	6.05	171	6.79	183	7.43	195	8.10	207	8.86	220	9.65
2500	36450	0.390	163	6.68	175	7.42	187	8.22	198	8.83	210	9.58	222	10.4
2600	37910	0.422	168	7.43	179	8.22	190	8.95	202	9.73	213	10.4	224	11.3
2800	40830	0.489	177	8.99	187	9.85	198	10.7	208	11.5	219	12.2	230	13.0
3000	43740	0.560	187	11.0	197	11.6	206	12.7	216	13.5	226	14.3	234	15.1
3200	46660	0.638					215	14.8	224	15.8	234	16.7	243	17.6
3400	49570	0.721									242	19.4	250	20.4

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	18960	0.106	246	6.40										
1400	20410	0.122	243	6.59	276	8.83	308	11.1						
1500	21870	0.141	240	6.83	274	9.00	305	11.5	333	13.9				
1600	23330	0.160	238	7.05	271	9.34	302	11.8	330	14.3	357	17.0		
1700	24790	0.180	235	7.28	268	9.54	299	12.1	326	14.6	353	17.5	403	23.6
1800	26240	0.202	233	7.59	265	9.89	295	12.4	323	15.0	350	17.9	399	24.0
1900	27700	0.225	232	7.91	263	10.2	293	12.7	320	15.4	347	18.3	395	24.4
2000	29160	0.250	231	8.32	262	10.6	291	13.0	317	15.8	343	18.7	391	24.9
2100	30620	0.275	231	8.77	260	11.0	288	13.5	315	16.2	340	19.2	389	25.4
2200	32080	0.302	230	9.31	259	11.4	286	13.9	312	16.6	338	19.6	386	25.9
2300	33540	0.330	231	9.92	258	12.0	285	14.4	310	17.1	336	20.1	381	26.4
2400	34990	0.360	**232**	**10.6**	258	12.5	284	15.0	308	17.7	332	20.6	379	27.0
2500	36450	0.390	**233**	**11.4**	258	13.3	283	15.6	307	18.2	331	21.2	376	27.6
2600	37910	0.422	235	12.1	**259**	**14.0**	282	16.3	306	18.9	329	21.8	374	28.2
2800	40830	0.489	240	13.9	261	15.9	**283**	**18.1**	304	20.4	327	23.3	370	29.6
3000	43740	0.560	246	16.0	265	17.9	285	20.1	**306**	**22.4**	326	25.0	368	31.3
3200	46660	0.638	251	18.3	270	20.3	288	22.4	307	24.8	**327**	**27.4**	365	33.3
3400	49570	0.721	259	21.1	276	22.9	294	25.1	310	27 4	328	29.9	364	35.6
3600	52490	0.810	265	24.2	283	26.0	299	28.1	315	30.6	332	32.9	**366**	**38.6**
3800	55400	0.900					305	31.5	320	33.8	335	36.4	**368**	**41.8**
4000	58320	1.000							326	37.6	340	40.0	370	45.6

No. 11 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	17640	0.063	106	1.26	132	1.97								
1100	19410	0.076	105	1.40	130	2.11								
1200	21170	0.090	**106**	**1.60**	130	2.26	152	3.12						
1300	22930	0.106	107	1.82	128	2.47	150	3.30	170	4.26				
1400	24700	0.122	109	2.09	129	2.72	149	3.53	168	4.47	187	5.58		
1500	26460	0.141	112	2.41	**130**	**3.05**	148	3.79	167	4.72	186	5.78	203	6.98
1600	28230	0.160	115	2.77	131	3.39	**149**	**4.14**	166	5.02	184	6.08	200	7.22
1700	29990	0.180	117	3.20	134	3.80	**150**	**4.53**	166	5.39	183	6.41	198	7.58
1800	31750	0.202	121	3.67	136	4.25	151	5.00	**166**	**5.82**	182	6.79	197	7.93
1900	33520	0.225	125	4.15	139	4.77	153	5.51	**167**	**6.32**	182	7.27	196	8.36
2000	35280	0.250	128	4.70	142	5.35	156	6.10	168	6.92	**182**	**7.84**	196	8.85
2100	37050	0.275	132	5.26	145	6.01	158	6.73	170	7.53	183	8.87	196	9.49
2200	38810	0.302	136	5.87	148	6.67	161	7.41	173	8.18	185	9.12	**197**	**10.2**
2300	40580	0.330	140	6.58	152	7.43	164	8.18	176	8.95	186	9.87	**198**	**10.9**
2400	42340	0.360	144	7.32	156	8.22	166	8.99	177	9.80	188	10.7	200	11.7
2500	44100	0.390	148	8.08	159	8.98	170	9.95	180	10.7	191	11.6	202	12.6
2600	45870	0.422	153	8.99	163	9.95	173	10.8	184	11.8	194	12.6	204	13.7
2800	49400	0.489	161	10.9	170	11.9	180	13.0	189	13.9	199	14.8	209	15.7
3000	52910	0.560	170	13.3	179	14.0	187	15.4	196	16.3	206	17.3	213	18.3
3200	56450	0.638					196	17.9	204	19.1	213	20.2	221	21.3
3400	59980	0.721									220	23.5	227	24.7

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	22930	0.106	224	7.74										
1400	24700	0.122	221	7.97	251	10.7	280	13.4						
1500	26460	0.141	218	8.26	249	10.9	277	13.9	303	16.8				
1600	28230	0.160	216	8.53	246	11.3	275	14.3	300	17.3	325	20.6		
1700	29990	0.180	214	8.81	244	11.6	272	14.7	296	17.7	321	21.2	366	28.6
1800	31750	0.202	212	9.18	241	12.0	268	15.0	294	18.2	318	21.7	363	29.0
1900	33520	0.225	211	9.57	239	12.4	266	15.4	291	18.6	316	22.2	359	29.5
2000	35280	0.250	210	10.1	238	12.8	265	15.7	288	19.1	312	22.6	356	30.1
2100	37050	0.275	210	10.6	236	13.3	262	16.3	286	19.6	309	23.2	354	30.7
2200	38810	0.302	209	11.3	236	13.8	260	16.8	284	20.1	307	23.7	351	31.3
2300	40580	0.330	210	12.0	235	14.5	259	17.4	282	20.7	306	24.3	346	32.0
2400	42340	0.360	**211**	**12.8**	235	15.1	258	18.2	280	21.4	302	24.9	345	32.7
2500	44100	0.390	**212**	**13.8**	235	16.1	257	18.9	279	22.0	301	25.7	342	33.4
2600	45870	0.422	214	14.6	**236**	**17.0**	256	19.7	278	22.9	299	26.4	340	34.1
2800	49400	0.489	218	16.8	237	19.2	**257**	**21.9**	276	24.7	297	28.2	336	35.8
3000	52910	0.560	224	19.4	241	21.7	259	24.3	**278**	**27.1**	296	30.3	335	37.9
3200	56450	0.638	228	22.1	246	24 6	262	27.1	279	30.0	**297**	**33.2**	332	40.3
3400	59980	0.721	236	25.5	251	27.	267	30.4	282	33.2	298	36.2	331	43.1
3600	63510	0.810	241	29.3	257	31.5	272	34.0	286	37.0	302	39.8	**333**	**46.7**
3800	67030	0.900					277	38.1	291	40.9	305	44.1	**335**	**50.6**
4000	70560	1.000							296	45.5	309	48.4	336	55.2

No. 12 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M	H. P.	R.P.M.	H. P.
1000	21000	0.063	97	1.50	121	2.35								
1100	23090	0.076	96	1.67	119	2.51								
1200	25190	0.090	**97**	**1.90**	119	2.69	139	3.72						
1300	27290	0.106	98	2.16	118	2.94	138	3.93	156	5.07				
1400	29390	0.122	100	2.49	118	3.24	137	4.21	154	5.31	172	6.64		
1500	31490	0.141	103	2.87	**119**	**3.63**	136	4.51	153	5.62	170	6.88	186	8.31
1600	33600	0.160	105	3.30	120	4.03	**137**	**4.93**	153	5.98	168	7.23	183	8.60
1700	35690	0.180	108	3.80	123	4.52	**138**	**5.39**	152	6.41	168	7.63	182	9.02
1800	37790	0.202	111	4.36	125	5.06	138	5.95	**153**	**6.93**	167	8.08	181	9.43
1900	39890	0.225	114	4.94	128	5.67	140	6.55	**153**	**7.52**	167	8.66	180	9.95
2000	41990	0.250	118	5.59	130	6.37	143	7.26	154	8.24	**167**	**9.33**	180	10.5
2100	44090	0.275	121	6.27	133	7.16	145	8.01	156	8.96	168	10.1	180	11.3
2200	46190	0.302	124	6.99	136	7.94	148	8.81	158	9.74	169	10.9	**181**	**12.2**
2300	48290	0.330	128	7.83	139	8.84	150	9.74	161	10.7	171	11.8	**182**	**12.9**
2400	50390	0.360	132	8.71	143	9.78	153	10.7	163	11.7	173	12.8	183	13.9
2500	52490	0.390	136	9.62	146	10.7	156	11.8	165	12.7	175	13.8	185	15.0
2600	54590	0.422	140	10.7	149	11.8	158	12.9	168	14.0	178	15.0	187	16.3
2800	58790	0.489	148	13.0	156	14.2	165	15.4	173	16.6	183	17.6	192	18.7
3000	62980	0.560	156	15.9	164	16.7	172	18.3	180	19.5	188	20.6	195	21.8
3200	67180	0.638					179	21.3	187	22.8	195	24.1	203	25.4
3400	71380	0.721									202	27.9	208	29.4

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	27290	0.106	205	9.22										
1400	29390	0.122	203	9.49	230	12.7	257	16.0						
1500	31490	0.141	200	9.84	228	13.0	254	16.6	278	20.0				
1600	33600	0.160	198	10.2	226	13.5	252	17.0	275	20.6	298	24.5		
1700	35690	0.180	196	10.5	223	13.7	249	17.4	272	21.0	294	25.2	336	34.0
1800	37790	0.202	194	10.9	221	14.3	246	17.9	269	21.6	292	25.8	333	34.6
1900	39890	0.225	193	11.4	219	14.7	244	18.3	267	22.2	289	26.4	329	35.1
2000	41990	0.250	193	12.0	218	15.3	243	18.7	264	22.8	286	26.9	326	35.9
2100	44090	0.275	193	12.6	217	15.8	240	19.5	263	23.3	283	27.7	324	36.6
2200	46190	0.302	192	13.4	216	16.4	238	20.0	260	23.9	282	28.2	322	37.3
2300	48290	0.330	193	14.3	215	17.3	238	20.7	258	24.6	280	29.0	318	38.0
2400	50390	0.360	**193**	**15.3**	215	18.0	237	21.6	257	25.5	277	29.7	316	38.9
2500	52490	0.390	**194**	**16.4**	215	19.2	236	22.5	256	26.2	276	30.5	313	39.8
2600	54590	0.422	196	17.4	**216**	**20.2**	235	23.5	255	27.2	274	31.4	312	40.6
2800	58790	0.489	200	20.0	218	22.9	**236**	**26.1**	253	29.4	273	33.6	308	42.6
3000	62980	0.560	205	23.0	221	25.8	238	29.0	**255**	**32.3**	272	36.0	307	45.1
3200	67180	0.638	209	26.4	225	29.2	240	32.3	256	35.7	**273**	**39.5**	304	48.0
3400	71380	0.721	216	30.4	230	33.0	245	36.2	258	39.5	273	43.1	303	51.3
3600	75580	0.810	221	34.9	236	37.5	249	40.5	263	44.1	277	47.4	**305**	**55.6**
3800	79780	0.900					254	45.4	267	48.7	279	52.4	**307**	**60.2**
4000	83980	1.000							272	54.2	283	57.6	308	65.7

No. 13 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	24650	0.063	89	1.76	112	2.76								
1100	27110	0.076	89	1.96	110	2.94								
1200	29570	0.090	**89**	**2.23**	110	3.16	129	4.36						
1300	32040	0.106	91	2.54	109	3.45	127	4.61	144	5.95				
1400	34500	0.122	92	2.92	109	3.80	126	4.94	142	6.24	159	7.79		
1500	36960	0.141	95	3.36	**110**	**4.26**	125	5.29	142	6.59	157	8.08	172	9.75
1600	39430	0.160	97	3.87	111	4.73	**126**	**5.78**	141	7.01	156	8.48	169	10.1
1700	41900	0.180	99	4.46	113	5.31	**127**	**6.32**	140	7.52	155	8.96	168	10.6
1800	44350	0.202	102	5.12	115	5.93	128	6.98	**141**	**8.13**	154	9.48	167	11.1
1900	46810	0.225	105	5.80	118	6.66	129	7.69	**142**	**8.82**	154	10.2	166	11.7
2000	49280	0.250	109	6.56	120	7.47	132	8.52	142	9.67	**154**	**11.0**	166	12.4
2100	51740	0.275	112	7.35	122	8.40	134	9.40	144	10.5	155	11.8	166	13.3
2200	54210	0.302	115	8.20	125	9.31	136	10.4	146	11.4	156	12.8	**167**	**14.3**
2300	56680	0.330	119	9.19	129	10.4	139	11.4	149	12.5	158	13.8	**168**	**15.2**
2400	59130	0.360	122	10.2	132	11.5	141	12.6	150	13.7	159	15.0	169	16.3
2500	61600	0.390	125	11.3	135	12.6	144	13.9	152	14.9	162	16.2	171	17.6
2600	64060	0.422	129	12.6	138	13.9	146	15.1	156	16.5	164	17.6	172	19.1
2800	69000	0.489	136	15.2	144	16.7	152	18.1	160	19.4	169	20.6	177	22.0
3000	73920	0.560	144	18.6	152	19.6	159	21.5	166	22.8	174	24.2	180	25.5
3200	78850	0.638					166	25.0	172	26.7	180	28.2	187	29.8
3400	83770	0.721									186	32.8	192	34.5

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	32040	0.106	189	10.8										
1400	34500	0.122	187	11.1	212	14.9	237	18.8						
1500	36960	0.141	185	11.6	211	15.2	235	19.4	256	23.5				
1600	39430	0.160	183	11.9	209	15.8	232	20.0	251	24.2	275	28.7		
1700	41900	0.180	181	12.3	206	16.1	230	20.5	251	24.7	272	29.6	310	39.9
1800	44350	0.202	179	12.8	204	16.7	227	21.0	249	25.4	269	30.3	307	40.6
1900	46810	0.225	179	13.4	202	17.2	225	21.5	246	26.0	267	30.9	304	41.2
2000	49280	0.250	178	14.1	202	17.9	224	22.0	244	26.7	264	31.6	301	42.1
2100	51740	0 275	178	14.8	200	18.6	222	22.8	242	27.4	262	32.5	299	42.9
2200	54210	0.302	177	15.7	199	19.3	220	23.5	240	28.1	260	33.1	297	43.8
2300	56680	0.330	178	16.8	199	20.3	219	24.3	239	28.9	259	34.0	293	44.6
2400	59130	0.360	**179**	**17.9**	199	21.1	219	25.4	237	29.9	255	34.8	292	45.6
2500	61600	0.390	**179**	**19.3**	199	22.5	218	26.4	236	30.8	255	35.8	289	46.7
2600	64060	0.422	181	20.5	**199**	**23.7**	217	27.6	235	31.9	253	36.8	288	47.7
2800	69000	0.489	185	23.5	201	26.9	**218**	**30.6**	234	34.5	252	39.4	285	50.0
3000	73920	0.560	189	27.0	204	30.3	219	34.0	**235**	**37.9**	251	42.3	283	52.9
3200	78850	0.638	193	30.9	208	34.3	222	37.9	236	41.9	**252**	**46.3**	281	56.3
3400	83770	0.721	199	35.7	212	38.7	226	42.4	239	46.3	252	50.5	280	60.2
3600	88700	0.810	204	40.9	218	44.0	230	47.5	242	51.7	255	55.6	**282**	**65.2**
3800	93620	0.900					235	53.2	246	57.1	258	61.5	**283**	**70.6**
4000	98560	1.000							251	63.5	262	67.6	285	77.1

No. 14 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	28680	0.063	83	2.04	104	3.20								
1100	31440	0.076	82	2.27	102	3.41								
1200	34290	0.090	**83**	**2.59**	102	3.67	119	5.06						
1300	37150	0.106	84	2.94	101	4.00	118	5.35	134	6.90				
1400	40000	0.122	86	3.39	102	4.41	117	5.72	132	7.23	147	9.04		
1500	42860	0.141	88	3.90	**102**	**4.94**	117	6.14	132	7.65	146	9.37	159	11.3
1600	45720	0.160	90	4.49	103	5.49	**117**	**6.70**	131	8.14	144	9.84	157	11.7
1700	48580	0.180	92	5.18	105	6.16	**118**	**7.33**	130	8.72	144	10.4	156	12.3
1800	51420	0.202	95	5.94	107	6.88	119	8.10	**131**	**9.43**	143	11.0	155	12.8
1900	54290	0.225	98	6.72	109	7.72	120	8.92	**132**	**10.2**	143	11.8	154	13.6
2000	57150	0.250	101	7.61	112	8.66	122	9.88	132	11.2	**143**	**12.7**	154	14.3
2100	60010	0.275	104	8.53	114	9.74	124	10.9	134	12.2	144	13.7	154	15.4
2200	62880	0.302	107	9.51	117	10.8	127	12.0	136	13.3	145	14.8	**155**	**16.5**
2300	65720	0.330	110	10.7	119	12.0	129	13.3	138	14.5	147	16.0	**156**	**17.6**
2400	68580	0.360	113	11.9	122	13.3	131	14.6	139	15.9	148	17.4	157	18.9
2500	71430	0.390	117	13.1	125	14.6	134	16.1	142	17.3	150	18.8	159	20.4
2600	74290	0.432	120	14.6	128	16.1	136	17.6	144	19.1	152	20.4	160	22.2
2800	80010	0.489	127	17.6	134	19.3	142	21.0	149	22.6	157	23.9	164	25.5
3000	85730	0.560	134	21.6	141	22.7	147	24.9	154	26.5	162	28.0	167	29.6
3200	91440	0.638					154	29.0	160	31.0	167	32.7	174	34.5
3400	97150	0.721									173	38.0	179	40.0

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	37150	0.106	176	12.6										
1400	40000	0.122	174	12.9	197	17.3	220	21.8						
1500	42860	0.141	172	13.4	196	17.7	218	22.6	238	27.3				
1600	45720	0.160	170	13.8	194	18.3	216	23.1	236	28.0	255	33.3		
1700	48580	0.180	168	14.3	192	18.7	214	23.7	233	28.6	252	34.3	288	46.3
1800	51420	0.202	167	14.9	189	19.4	211	24.3	231	29.4	250	35.1	285	47.1
1900	54290	0.225	166	15.5	188	20.0	209	24.9	229	30.2	248	35.9	282	47.8
2000	57150	0.250	165	16.3	187	20.8	208	25.5	227	31.0	245	36.7	279	48.8
2100	60010	0.275	165	17.2	186	21.6	206	26.5	225	31.8	243	37.6	278	49.8
2200	62880	0.302	164	18.3	185	22.4	204	27.3	223	32.5	242	38.4	276	50.8
2300	65720	0.330	165	19.5	184	23.5	204	28.2	222	33.5	240	39.4	272	51.8
2400	68580	0.360	**166**	**20.8**	184	24.5	203	29.4	220	34.7	237	40.4	271	52.9
2500	71430	0.390	**167**	**22.4**	184	26.1	202	30.6	219	35.7	237	41.6	269	54.1
2600	74290	0.432	168	23.7	**185**	**27.5**	202	32.0	219	37.1	235	42.7	267	55.3
2800	80010	0.489	172	27.3	187	31.2	**202**	**35.5**	217	40.0	234	45.7	264	58.0
3000	85730	0.560	176	31.4	189	35.1	204	39.4	**219**	**43.9**	233	49.0	263	61.4
3200	91440	0.638	179	35.9	193	39.8	206	43.9	219	48.6	**234**	**53.7**	261	65.3
3400	97150	0.721	185	41.4	197	44.9	210	49.2	222	53.7	234	58.6	260	69.8
3600	102870	0.810	189	47.4	202	51.0	214	55.1	225	60.0	237	64.5	**262**	**75.7**
3800	108580	0.900					218	61.8	229	66.3	239	71.4	**263**	**81.9**
4000	114290	1.000							233	73.7	243	78.4	264	89.4

No. 15 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	32800	0.063	77	2.34	97	3.67								
1100	36080	0.076	77	2.61	95	3.92								
1200	39360	0.090	**77**	**2.97**	95	4.21	111	5.81						
1300	42650	0.106	79	3.38	94	4.59	110	6.14	125	7.92				
1400	45920	0.122	80	3.89	**95**	5.06	109	6.57	123	8.30	137	10.4		
1500	49210	0.141	82	4.48	**95**	**5.67**	109	7.04	123	8.78	136	10.8	149	13.0
1600	52490	0.160	84	5.15	96	6.30	**109**	**7.70**	122	9.34	135	11.3	147	13.4
1700	55760	0.180	86	5.94	98	7.07	**110**	**8.42**	121	10.0	134	11.9	145	14.1
1800	59040	0.202	89	6.82	100	7.90	111	9.29	**122**	**10.8**	133	12.6	145	14.7
1900	62320	0.225	91	7.72	102	8.87	112	10.2	**123**	**11.8**	133	13.5	144	15.6
2000	65610	0.250	94	8.73	104	9.95	114	11.4	123	12.9	**133**	**14.6**	144	16.5
2100	68900	0.275	97	9.79	106	11.2	116	12.5	125	14.0	134	15.8	144	17.7
2200	72160	0.302	99	10.9	109	12.4	118	13.8	127	15.2	135	17.0	**145**	**19.0**
2300	75450	0.330	103	12.2	111	13.8	120	15.2	129	16.7	137	18.4	**145**	**20.2**
2400	78720	0.360	105	13.6	114	15.3	122	16.7	130	18.2	138	19.9	147	21.7
2500	82010	0.390	109	15.0	117	16.7	125	18.5	132	19.9	140	21.6	148	23.4
2600	85300	0.432	112	16.7	119	18.5	127	20.1	135	21.9	142	23.4	149	25.4
2800	91850	0.489	118	20.2	125	22.2	132	24.1	139	25.9	146	27.5	153	29.3
3000	98420	0.560	125	24.8	131	26.1	137	28.6	144	30.4	151	32.2	156	34.0
3200	104970	0.638					143	33.3	149	35.6	156	37.6	162	39.6
3400	111520	0.721									161	43.7	167	45.9

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	42650	0.106	164	14.4										
1400	45920	0.122	162	14.8	184	19.9	205	25.0						
1500	49210	0.141	160	15.4	183	20.3	203	25.9	222	31.3				
1600	52490	0.160	159	15.9	181	21.0	201	26.6	220	32.2	238	38.3		
1700	55760	0.180	157	16.4	179	21.5	199	27.2	217	32.9	235	39.4	269	53.1
1800	59040	0.202	155	17.1	177	22.3	197	27.9	215	33.8	233	40.3	266	54.0
1900	62320	0.225	155	17.8	175	23.0	195	28.6	213	34.7	231	41.2	263	54.9
2000	65610	0.250	154	18.7	175	23.9	194	29.3	211	35.6	229	42.1	261	56.0
2100	68900	0.275	154	19.7	173	24.8	192	30.4	210	36.5	227	43.2	259	57.2
2200	72160	0.302	153	21.0	173	25.7	191	31.3	208	37.4	225	44.1	257	58.3
2300	75450	0.330	154	22.3	172	27.0	190	32.4	207	38.5	224	45.2	254	59.4
2400	78720	0.360	**155**	**23.8**	172	28.1	189	33.8	205	39.8	221	46.4	253	60.8
2500	82010	0.390	**155**	**25.7**	172	29.9	189	35.1	205	41.0	221	47.7	251	62.1
2600	85300	0.422	157	27.2	**173**	**31.5**	188	36.7	204	42.5	219	49.1	249	63.5
2800	91850	0.489	160	31.3	174	35.8	**189**	**40.7**	203	45.9	218	52.4	247	66.6
3000	98420	0.560	164	36.0	177	40.3	190	45.2	**204**	**50.4**	217	56.3	245	70.4
3200	104970	0.638	167	41.2	180	45.7	192	50.4	205	55.8	**218**	**61.7**	243	74.9
3400	111520	0.721	173	47.5	184	51.5	196	56.5	207	61.7	219	67.3	243	80.1
3600	118100	0.810	177	54.5	189	58.5	199	63.2	210	68.9	221	74.0	**244**	**86.9**
3800	124650	0.900					203	70.9	213	76.1	223	81.9	**245**	**94.1**
4000	131210	1.000							217	84.6	227	90.0	247	102.6

No. 16 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	37320	0.063	73	2.66	91	4.17								
1100	41060	0.076	72	2.97	89	4.46								
1200	44790	0.090	**73**	**3.38**	89	4.79	104	6.61						
1300	48520	0.106	74	3.84	88	5.22	103	6.99	117	9.01				
1400	52250	0.122	75	4.42	89	5.76	103	7.48	116	9.45	129	11.8		
1500	55980	0.141	77	5.10	**89**	**6.45**	102	8.01	115	9.98	128	12.2	139	14.8
1600	59720	0.160	79	5.86	90	7.17	**103**	**8.76**	114	10.6	126	12.9	138	15.3
1700	63450	0.180	81	6.76	92	8.04	**103**	**9.58**	114	11.4	126	13.6	136	16.0
1800	67170	0.202	83	7.76	94	8.99	104	10.6	**114**	**12.3**	125	14.4	136	16.8
1900	70910	0.225	86	8.78	96	10.1	105	11.7	**115**	**13.4**	125	15.4	135	17.7
2000	74640	0.250	88	9.93	98	11.3	107	12.9	116	14.7	**125**	**16.6**	135	18.7
2100	78380	0.275	91	11.1	99	12.7	109	14.2	117	15.9	126	17.9	135	20.1
2200	82110	0.302	93	12.4	102	14.1	111	15.7	119	17.3	127	19.3	**136**	**21.6**
2300	85840	0.330	96	13.9	104	15.7	113	17.3	121	19.0	128	20.9	**136**	**23.0**
2400	89570	0.360	99	15.5	107	17.4	114	19.0	122	20.7	129	22.7	138	24.7
2500	93300	0.390	102	17.1	109	19.0	117	21.1	124	22.6	131	24.5	139	26.6
2600	97040	0.422	105	19.0	112	21.1	119	22.9	126	24.9	133	26.6	140	28.9
2800	104500	0.489	111	23.0	117	25.2	124	27.4	130	29.5	137	31.2	144	33.3
3000	111970	0.560	117	28.2	123	29.7	128	32.5	135	34.6	141	36.6	146	38.7
3200	119430	0.638					134	37.9	140	40.5	146	42.8	152	45.1
3400	126900	0.721									151	49.7	156	52.2

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	48520	0.106	154	16.4										
1400	52250	0.122	152	16.9	173	22.6	193	28.4						
1500	55980	0.141	150	17.5	171	23.0	191	29.4	208	35.6				
1600	59720	0.160	149	18.1	169	23.9	189	30.2	206	36.6	223	43.5		
1700	63450	0.180	147	18.6	168	24.4	187	31.0	204	37.4	221	44.8	252	60.4
1800	67170	0.202	146	19.4	166	25.3	184	31.8	202	38.4	219	45.8	249	61.4
1900	70910	0.225	145	20.3	164	26.1	183	32.5	200	39.4	217	46.9	247	62.5
2000	74640	0.250	144	21.3	164	27.1	182	33.3	198	40.5	214	47.9	244	63.8
2100	78380	0.275	144	22.5	163	28.2	180	34.6	197	41.5	213	49.2	243	65.0
2200	82110	0.302	144	23.8	162	29.2	179	35.6	195	42.5	211	50.2	241	66.3
2300	85840	0.330	144	25.4	161	30.7	178	36.9	194	43.8	210	51.5	238	67.6
2400	89570	0.360	**145**	**27.1**	161	32.0	178	38.4	193	45.3	208	52.7	237	69.1
2500	93300	0.390	**146**	**29.2**	161	34.1	177	39.9	192	46.6	207	54.3	235	70.7
2600	97040	0.422	147	31.0	**162**	**35.9**	176	41.7	191	48.4	206	55.8	234	72.2
2800	104500	0.489	150	35.6	163	40.7	**177**	**46.3**	190	52.2	204	59.7	231	75.8
3000	111970	0.560	154	41.0	166	45.8	178	51.5	**191**	**57.4**	204	64.0	230	80.1
3200	119430	0.638	157	46.9	169	52.0	180	57.4	192	63.5	**204**	**70.2**	228	85.3
3400	126900	0.721	162	54.0	173	58.6	184	64.3	194	70.2	205	76.6	228	91.1
3600	134380	0.810	166	62.0	177	66.6	187	71.9	197	78.3	208	84.2	**229**	**98.8**
3800	141810	0.900					191	80.7	200	86.5	209	93.2	**230**	**107.0**
4000	149300	1.000							204	96.3	213	102.4	231	116.7

No. 17 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P	R.P.M.	H. P.
1000	42140	0.063	68	3.01	85	4.71								
1100	46350	0.076	68	3.35	84	5.03								
1200	50560	0.090	**68**	**3.82**	84	5.41	98	7.46						
1300	54780	0.106	69	4.34	83	5.90	97	7.89	110	10.2				
1400	58980	0.122	71	5.00	84	6.50	97	8.44	109	10.7	121	13.3		
1500	63200	0.141	72	5.75	**84**	**7.28**	96	9.05	108	11.3	120	13.8	131	16.7
1600	67430	0.160	74	6.62	85	8.09	**97**	**9.88**	108	12.0	119	14.5	130	17.3
1700	71630	0.180	76	7.63	87	9.08	**97**	**10.8**	107	12.9	118	15.3	128	18.1
1800	75840	0.202	78	8.76	88	10.2	98	11.9	**108**	**13.9**	118	16.2	128	18.9
1900	80050	0.225	81	9.91	90	11.4	99	13.2	**108**	**15.1**	118	17.4	127	20.0
2000	84270	0.250	83	11.2	92	12.8	101	14.6	109	16.5	**118**	**18.7**	127	21.1
2100	88490	0.275	85	12.6	94	14.4	102	16.1	110	18.0	118	20.2	127	22.7
2200	92690	0.302	88	14.0	96	15.9	104	17.7	112	19.5	120	21.8	**128**	24.4
2300	96900	0.330	91	15.7	98	17.8	106	19.5	114	21.4	121	23.6	**128**	26.0
2400	101130	0.360	93	17.5	101	19.6	108	21.5	115	23.4	122	25.6	130	27.9
2500	105340	0.390	96	19.3	103	21.5	110	23.8	117	25.5	124	27.7	131	30.1
2600	109560	0.422	99	21.5	105	23.8	112	25.9	119	28.1	125	30.1	132	32.7
2800	117990	0.489	104	26.0	110	28.5	117	30.9	122	33.2	129	35.3	135	37.6
3000	126410	0.560	110	31.8	116	33.5	121	36.7	127	39.0	133	41.3	138	43.6
3200	134820	0.638					127	42.8	132	45.7	138	48.3	143	50.9
3400	143260	0.721									142	56.1	147	59.0

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	54780	0.106	145	18.5										
1400	58980	0.122	143	19.1	162	25.5	181	32.1						
1500	63200	0.141	141	19.7	161	26.0	180	33.2	196	40.2				
1600	67430	0.160	140	20.4	160	27.0	178	34.1	194	41.3	210	49.1		
1700	71630	0.180	138	21.0	158	27.6	176	35.0	192	42.2	208	50.6	237	68.2
1800	75840	0.202	137	21.9	156	28.6	174	35.8	190	43.4	206	51.7	235	69.4
1900	80050	0.225	137	22.9	155	29.5	172	36.7	188	44.5	204	52.9	232	70.5
2000	84270	0.220	136	24.1	154	30.6	171	37.6	187	45.7	202	54.1	230	72.0
2100	88490	0.275	136	25.4	153	31.8	170	39.0	185	46.8	200	55.5	229	73.4
2200	92690	0.302	135	26.9	152	33.0	168	40.2	184	48.0	199	56.7	227	74.9
2300	96900	0.330	136	28.7	152	34.7	168	41.6	182	49.4	198	58.1	224	76.3
2400	101130	0.360	**137**	**30.6**	152	36.1	167	43.4	181	51.2	195	59.5	223	78.0
2500	105340	0.390	**137**	**33.0**	152	38.4	167	45.1	181	52.6	195	61.3	221	79.8
2600	109560	0.432	138	35.0	**152**	**40.5**	166	47.1	180	54.6	194	63.0	220	81.5
2800	117990	0.489	141	40.2	154	46.0	**167**	**52.3**	179	59.0	192	67.3	218	85.6
3000	126410	0.560	145	46.2	156	51.7	168	58.1	**180**	**64.7**	192	72.3	217	90.5
3200	134820	0.638	148	52.9	159	58.7	170	64.7	181	71.7	**192**	**79.2**	215	96.2
3400	143260	0.721	152	61.0	162	66.2	173	72.5	182	79.2	193	86.4	214	102.9
3600	151700	0.810	156	69.9	167	75.1	176	81.2	185	88.4	195	95.1	**215**	**111.6**
3800	160100	0.900					180	91.0	188	97.7	197	105.2	**217**	**120.8**
4000	168550	1.000							192	108.7	200	115.6	218	131.8

No. 18 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	47240	0.063	65	3.37	81	5.28								
1100	51960	0.076	64	3.76	80	5.64								
1200	56680	0.090	**65**	**4.28**	80	6.06	93	8.36						
1300	61420	0.106	66	4.86	78	6.61	92	8.85	104	11.4				
1400	66130	0.122	67	5.61	79	7.29	91	9.46	103	12.0	115	14.9		
1500	70860	0.141	68	6.45	**80**	**8.17**	91	10.2	102	12.6	113	15.5	124	18.7
1600	75590	0.160	70	7.42	80	9.07	**91**	**11.1**	102	13.5	112	16.3	122	19.4
1700	80300	0.180	72	8.55	82	10.2	**92**	**12.1**	101	14.4	112	17.2	121	20.3
1800	85010	0.202	74	9.82	83	11.4	92	13.4	**102**	**15.6**	111	18.2	121	21.2
1900	89750	0.225	76	11.1	85	12.8	93	14.8	**102**	**16.9**	111	19.5	120	22.4
2000	94480	0.250	78	12.6	87	14.3	95	16.3	103	18.5	**111**	**21.0**	120	23.7
2100	99200	0.275	81	14.1	88	16.1	97	18.0	104	20.2	112	22.7	120	25.4
2200	103910	0.302	83	15.7	91	17.9	98	19.8	106	21.9	113	24.4	**121**	**27.3**
2300	108650	0.330	86	17.6	93	19.9	100	21.9	107	24.0	114	26.4	**121**	**29.1**
2400	113370	0.360	88	19.6	95	22.0	102	24.1	108	26.3	115	28.7	122	31.3
2500	118100	0.390	91	21.7	97	24.1	104	26.6	110	28.6	117	31.2	123	33.7
2600	122820	0.422	93	24.1	100	26.6	106	29.0	112	31.5	118	33.7	125	36.6
2800	132260	0.489	98	29.1	104	31.9	110	34.7	116	37.3	122	39.5	128	42.1
3000	141710	0.560	104	35.7	110	37.6	115	41.2	120	43.8	126	46.3	130	48.9
3200	151160	0.638					120	48.0	125	51.2	130	54.1	135	57.0
3400	160600	0.721									135	62.9	139	66.1

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	61420	0.106	137	20.7										
1400	66130	0.122	135	21.4	153	28.6	171	36.0						
1500	70860	0.141	133	22.1	152	29.2	170	37.3	185	45.0				
1600	75590	0.160	132	22.9	151	30.3	168	38.2	183	46.3	198	55.1		
1700	80300	0.180	131	23.6	149	30.9	166	39.2	181	47.3	196	56.7	224	76.5
1800	85010	0.202	130	24.6	147	32.1	164	40.2	180	48.6	195	58.0	222	77.8
1900	89750	0.225	129	25.6	146	33.1	163	41.2	178	49.9	193	59.3	220	79.1
2000	94480	0.250	128	27.0	146	34.4	162	42.1	176	51.2	191	60.6	217	80.7
2100	99200	0.275	128	28.4	145	35.7	160	43.8	175	52.5	189	62.2	216	82.3
2200	103910	0.302	128	30.2	144	36.9	159	45.0	173	53.8	188	63.5	215	83.9
2300	108650	0.330	128	32.2	143	38.9	158	46.7	172	55.4	187	65.1	212	85.5
2400	113370	0.360	**129**	**34.4**	143	40.5	158	48.6	171	57.4	185	66.8	211	87.5
2500	118100	0.390	**130**	**36.9**	143	43.1	157	50.6	171	59.0	184	68.7	209	89.4
2600	122820	0.432	131	39.7	**144**	**45.4**	157	52.8	170	61.2	183	70.6	208	91.4
2800	132260	0.489	133	45.0	145	51.5	**157**	**58.7**	169	66.1	182	75.5	206	95.9
3000	141710	0.560	137	51.8	147	58.0	158	65.1	**170**	**72.6**	181	81.0	205	101.4
3200	151160	0.638	140	59.3	150	65.8	160	72.6	171	80.3	**182**	**88.8**	203	107.9
3400	160600	0.721	144	68.4	153	74.2	163	81.3	172	88.8	182	96.9	202	115.3
3600	170070	0.810	147	78.4	157	84.2	166	91.0	175	99.2	185	106.6	**203**	**125.1**
3800	179500	0.900					170	102.1	178	109.5	186	117.9	**205**	**135.4**
4000	188950	1.000							181	121.8	189	129.6	206	147.7

No. 19 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	52630	0.063	61	3.76	76	5.88								
1100	57900	0.076	61	4.19	75	6.28								
1200	63150	0.090	**61**	**4.77**	75	6.75	88	9.31						
1300	68430	0.106	62	5.42	74	7.36	87	9.86	98	12.7				
1400	73680	0.122	63	6.25	75	8.12	86	10.6	97	13.3	109	16.7		
1500	78950	0.141	65	7.18	**75**	**9.10**	86	11.3	97	14.1	107	17.3	117	20.8
1600	84220	0.160	66	8.27	76	10.1	**86**	**12.4**	96	15.0	106	18.1	116	21.6
1700	89470	0.180	68	9.53	77	11.3	**87**	**13.5**	96	16.1	106	19.1	115	22.6
1800	94720	0.202	70	10.9	79	12.7	87	14.9	**96**	**17.4**	105	20.3	114	23.7
1900	99990	0.225	72	12.4	81	14.2	89	16.4	**97**	**18.9**	105	21.7	114	25.0
2000	105270	0.250	74	14.0	82	16.0	90	18.2	97	20.7	**105**	**23.4**	114	26.4
2100	110520	0.275	76	15.7	84	18.0	92	20.1	98	22.5	106	25.3	114	28.3
2200	115780	0.302	79	17.5	86	19.9	93	22.1	100	24.4	107	27.2	**114**	**30.4**
2300	121050	0.330	81	19.6	88	22.2	95	24.4	102	26.7	108	29.5	**115**	**32.4**
2400	126310	0.360	83	21.8	90	24.5	96	26.8	103	29.2	109	32.0	116	34.8
2500	131580	0.390	86	24.1	92	26.8	99	29.7	104	31.9	111	34.6	117	37.6
2600	136840	0.422	89	26.8	94	29.7	100	32.3	106	35.1	112	37.6	118	40.8
2800	147390	0.489	93	32.5	98	35.6	104	38.6	110	41.5	115	44.1	121	46.9
3000	157890	0.560	99	39.7	104	41.9	109	45.9	114	48.7	119	51.6	123	54.5
3200	168420	0.638					113	53.4	118	57.0	123	60.3	128	63.5
3400	178950	0.721									127	70.0	132	73.6

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	68430	0.106	130	23.1										
1400	73680	0.122	128	23.8	145	31.9	162	40.1						
1500	78950	0.141	126	24.7	144	32.5	161	41.5	175	50.2				
1600	84220	0.160	125	25.5	143	33.7	159	42.6	174	51.6	188	61.4		
1700	89470	0.180	124	26.3	141	34.4	157	43.7	172	52.7	186	63.2	212	85.2
1800	94720	0.202	123	27.4	140	35.7	155	44.8	170	54.2	184	64.6	210	86.6
1900	99990	0.225	122	28.6	139	36.8	154	45.9	169	55.6	183	66.1	208	88.1
2000	105270	0.250	122	30.0	138	38.3	153	46.9	167	57.0	181	67.5	206	89.9
2100	110520	0.275	122	31.7	137	39.7	152	48.7	166	58.5	179	69.3	205	91.7
2200	115780	0.302	121	33.6	136	41.2	151	50.2	164	59.9	178	70.8	203	93.5
2300	121050	0.330	122	35.8	136	43.3	150	52.0	163	61.7	177	72.6	201	95.3
2400	126310	0.360	**122**	**38.3**	136	45.1	150	54.2	162	63.9	175	74.4	200	97.5
2500	131580	0.390	**123**	**41.2**	136	48.0	149	56.3	162	65.7	174	76.5	198	99.6
2600	136840	0.422	124	43.7	**136**	**50.5**	149	58.8	161	68.2	173	78.7	197	101.8
2800	147390	0.489	126	50.2	137	57.4	**149**	**65.3**	160	73.6	172	84.1	195	106.9
3000	157890	0.560	130	57.8	140	64.6	150	72.6	**161**	**80.9**	172	90.3	194	113.0
3200	168420	0.638	132	66.1	142	73.3	152	80.9	162	89.5	**172**	**98.9**	192	120.2
3400	178950	0.721	136	76.2	145	82.7	155	90.6	163	98.9	173	107.9	192	128.5
3600	189490	0.810	140	87.4	149	93.9	157	101.4	166	110.5	175	118.8	**193**	**139.3**
3800	199990	0.900					161	113.7	168	122.0	176	131.4	**194**	**150.9**
4000	210530	1.000							172	135.7	179	144.4	195	164.6

No. 20 Niagara Conoidal Fan—(Type N)

Capacities and Static Pressures at 70° F. and 29.92″ Barom.

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	¼″ S.P.		⅜″ S.P.		½″ S.P.		⅝″ S.P.		¾″ S.P.		⅞″ S.P.	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1000	58320	0.063	58	4.16	73	6.52								
1100	64150	0.076	58	4.64	72	6.96								
1200	69980	0.090	**58**	**5.28**	72	7.48	84	10.3						
1300	75820	0.106	59	6.00	71	8.16	83	10.9	94	14.1				
1400	81640	0.122	60	6.92	71	9.00	82	11.7	93	14.8	103	18.5		
1500	87480	0.141	62	7.96	**72**	10.1	82	12.5	92	15.6	102	19.1	112	23.1
1600	93320	0.160	63	9.16	72	11.2	**82**	**13.7**	92	16.6	101	20.1	110	23.9
1700	99140	0.180	65	10.6	74	12.6	**83**	**15.0**	91	17.8	101	21.2	109	25.1
1800	104960	0.202	67	12.1	75	14.1	83	16.5	**92**	**19.3**	100	22.5	109	26.2
1900	110800	0.225	69	13.7	77	15.8	84	18.2	**92**	**20.9**	100	24.1	108	27.7
2000	116640	0.250	71	15.5	78	17.7	86	20.2	93	22.9	**100**	**25.9**	108	29.3
2100	122480	0.275	73	17.4	80	19.9	87	22.3	94	24.9	101	28.0	108	31.4
2200	128300	0.302	75	19.4	82	22.1	89	24.5	95	27.1	102	30.2	**109**	**33.7**
2300	134140	0.330	77	21.8	84	24.6	90	27.1	97	29.6	103	32.7	**109**	**35.9**
2400	139960	0.360	79	24.2	86	27.2	92	29.7	98	32.4	104	35.5	110	38.6
2500	145800	0.390	82	26.7	88	29.7	94	32.9	99	35.3	105	38.3	111	41.6
2600	151650	0.422	84	29.7	90	32.9	95	35.8	101	38.9	107	41.6	112	45.2
2800	163300	0.489	89	36.0	94	39.4	99	42.8	104	46.0	110	48.8	115	52.0
3000	174960	0.560	94	44.0	99	46.4	103	50.8	108	54.0	113	57.2	117	60.4
3200	186620	0.638					108	59.2	112	63.2	117	66.8	122	70.4
3400	198300	0.721									121	77.6	125	81.6

Outlet Velocity Ft./Min.	Capacity Cu. Ft. Air Per Min.	Add for Total Press.	1″ S.P.		1¼″ S.P.		1½″ S.P.		1¾″ S.P.		2″ S.P.		2½″ S.P	
			R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.	R.P.M.	H. P.
1300	75820	0.106	123	25.6										
1400	81640	0.122	122	26.4	138	35.3	154	44.4						
1500	87480	0.141	120	27.3	137	36.0	153	46.0	167	55.6				
1600	93320	0.160	119	28.2	136	37.4	151	47.2	165	57.2	179	68.0		
1700	99140	0.180	118	29.1	134	38.2	150	48.4	163	58.4	177	70.0	202	94.4
1800	104960	0.202	117	30.4	133	39.5	148	49.6	162	60.0	175	71.6	200	96.0
1900	110800	0.225	116	31.6	132	40.8	147	50.8	160	61.6	174	73.2	198	97.6
2000	116640	0.250	116	33.3	131	42.4	146	52.0	159	63.2	172	74.8	196	99.6
2100	122480	0.275	116	35.1	130	44.0	144	54.0	158	64.8	170	76.8	195	101.6
2200	128300	0.302	115	37.3	130	45.6	143	55.6	156	66.4	169	78.4	193	103.6
2300	134140	0.330	116	39.7	129	48.0	143	57.6	155	68.4	168	80.4	191	105.6
2400	139960	0.360	**116**	**42.4**	129	50.0	142	60.0	154	70.8	166	82.4	190	108.0
2500	145800	0.390	**117**	**45.6**	129	53.2	142	62.4	154	72.8	166	84.8	188	110.4
2600	151650	0.422	118	48.4	**130**	**56.0**	141	65.2	153	75.6	165	87.2	187	112.8
2800	163300	0.489	120	55.6	131	63.6	**142**	**72.4**	152	81.6	164	93.2	185	118.4
3000	174960	0.560	123	64.0	133	71.6	143	80.4	**153**	**89.6**	163	100.0	184	125.2
3200	186620	0.638	126	73.2	135	81.2	144	89.6	154	99.2	**164**	**109.6**	183	133.2
3400	198300	0.721	130	84.4	138	91.6	147	100.4	155	109.6	164	119.6	182	142.4
3600	209960	0.810	133	96.8	142	104.0	150	112.4	158	122.4	166	131.6	**183**	**154.4**
3800	221600	0.900					153	126.0	160	135.2	167	145.6	**184**	**167.2**
4000	233300	1.000							163	150.4	170	160.0	185	182.4

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